

CABLE OWNERSHIP LIMITS & THE FLOW OF VIDEO CONTENT: EVIDENCE FROM U.S. MARKETS

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Summary:

Pursuant to congressional statute, horizontal cable ownership caps are levied to ensure that cable TV systems, by amassing market power, do not unfairly impede the flow of video programming to viewers. In 1993, the FCC thereby determined that no firm be permitted to own cable TV systems whose lines passed more than thirty percent of the national market. In 1999, the FCC changed the rule to limit single-firm ownership to 30% of national multi-channel video programming distribution (MVPD) subscribers.

Since the horizontal cap was instituted, the leading cable firm's share of national multi-channel video subscribers has risen from about 23% in 1993 to around 28% in 2006. At the same time, the market share of the top four MVPD operators rose from 45% in 1993 to 63% in 2005 (2006 FCC data are not yet available). Yet, concomitant with that consolidation, video programming content has entered a new era of abundance and profitability. Examination of the statistical relationship between cable program network revenues and market concentration among cable operators reveals no evidence that video programming is financially harmed by an increase in the size of large multiple system operators (MSOs), results supported by financial event studies showing that investors in cable TV programming do not believe that major MVPD mergers reduce returns to video content creation.

Were anti-competitive results to obtain from growth of the leading MSO, indications would likely emerge as the top MSO market share rose from 23% to 28%. Yet, the data reveal no such outcome. Moreover, the FCC's stated "open field" rationale for the cap – ensuring that new cable program networks have at least two distinct opportunities to obtain MVPD carriage of minimum efficient scale – renders the 1999 cap overly restrictive. As either of two satellite operators now individually offer national coverage approximating the FCC's minimum scale threshold for program network viability, the "open field" criterion is satisfied simply by the presence of existing MVPD rivals.

The emergence of robust, rapidly expanding video distribution platforms – including the World Wide Web, podcasting, and mobile TV – are strongly reinforcing these trends. Video content increasingly accesses multiple pathways to reach viewers, stimulating program production and fundamentally altering the rationale for rules to protect that flow.

I. INTRODUCTION

(1) Origins of the Horizontal Cable Subscriber Cap.

In the 1992 Cable Television Consumer Protection and Competition Act (1992 Cable Act), Congress directed the Federal Communications Commission (FCC) to enact regulations to limit national ownership of multiple cable TV systems so as to protect the flow of video programming to customers. To prevent cable operators from restricting output in the market for video programs – key inputs into the multi-channel video program distribution (MVPD) sector – the FCC was to enact certain safeguards. Specifically, the statute directed the Commission to

ensure that no cable operator or group of cable operators can unfairly impede, either because of the size of any individual operator or because of joint actions by a group of operators of sufficient size, the flow of video programming from the video programmer to the consumer.²

In 1993, the FCC determined that it would, under this mandate, impose a rule limiting the market share attributed to any one company. It set that “horizontal cap” equal to 30% of national homes passed by cable operators. This rule was designed to ensure that at least 70% of cable TV subscribers would be served by an operator other than the leading firm, and that at least four firms would supply the national market. In 1999, the rule was adjusted to a 30% cap on national MVPD subscribers, adding satellite TV households and other MVPDs to cable TV households in determining the maximum ownership level.³

These rules rely on the logic that increased concentration at the distribution level may inefficiently reduce prices paid to upstream suppliers, including cable TV program networks and video show producers (which provide content to cable TV networks). By capping the market share of the largest firm, the programming market is arguably protected from monopoly power by MVPD operators.

² 47 U.S.C. § 533(f)(2)(A).

³ For the purposes of the 30% cap, the percentage of MVPD customers served by one MSO is calculated using an attribution methodology that leads to somewhat different subscriber counts than those typically reported in MSO financial documents. Subscribers are attributed to an MSO under the following circumstances:

- The MSO owns at least 5% of the given venture to which the subscribers belong.
- Subscribers were extant at the time that the cap went into place, or subscribers were added via merger or acquisition (i.e., subscribers added through “in-fill” are not counted against the cap).
- Subscribers are not part of a system that has been built to compete in a local market with another cable operator (“overbuild”).

See, e.g., *Time Warner Entertainment, Co, L.P. v. Federal Communications Commission*, LEXSEE 240 F.3D 1126 (D.C. Cir. 2001) [*“Time Warner II”*].

(2) Court Rejects FCC Reasoning in Establishing a 30% Cap.

In 2001, the FCC's 30% horizontal cap was rejected by the D.C. Circuit Court of Appeals, which found the reasoning used to establish the horizontal cap legally insufficient.⁴ It remanded the issue to the FCC, which was directed to justify its rules by a more compelling analysis.

The Commission's logic, found by the court as wanting, went as follows. First, the Commission theorized that the issue to focus on in setting the horizontal cap was the ability of a new, independent cable TV programming network⁵ to enter the market and successfully gain carriage on MVPD systems. Second, the FCC concluded that such an entrant into the programming market would need to serve (or be available for viewing in) at least twenty percent of MVPD households in order to achieve financial viability. Third, this "minimum threshold" was coupled with the assumption that even an efficient program network entrant would initially achieve a success rate (actually striking carriage deals) with just one-half of potential cable TV systems on a subscriber-adjusted basis. Fourth, a cap was set on the grounds that the efficient entrant required an "open field" that excluded carriage on not one but two large, capped MSOs. The cap was then set at 30% by solving for X in the equation: $100\% - 2 * X\% = 40\%$. The MVPD market not served by the two leading suppliers would then leave sufficient "open field" for the efficient entrant to gain financial viability.

Virtually every step of this logic was questioned by the D.C. Circuit, including the assumption that an entrant be given an "open field" that entirely excluded carriage via either of two leading MSOs. Indeed, the Court found that support for this leap was wholly lacking. "While a 60% limit might be appropriate as necessary to ensure that programmers had an adequate 'open field' even in the face of rejection by the largest company, the present record supports no more."⁶

The FCC has yet to either adjust the horizontal cap rule, or to justify the 30% limit with additional evidence or analysis. In the interim, the question regarding a horizontal market share cap has also become more important, in that one cable operator (Comcast) now serves about 28% of all MVPD subscribers.⁷ If the 30% cap is still the operative regulation, it implies that Comcast may be constrained in acquiring new cable operator assets, even in instances where significant efficiencies, such as economies of scale that the FCC has itself considered to be important in spurring deployment of video distribution services to consumers, are available.⁸

⁴ *Time Warner II* (2001).

⁵ A new cable programming network would be an upstart to rival established cable program networks such as ESPN, CNN, or MTV. An "independent" network would be one not owned by one or more cable TV system operators, such as Comcast, Time Warner, or Cablevision.

⁶ *Time Warner II* (2001), p. 1136.

⁷ Table 1.

⁸ Federal Communications Commission, *Second Further Notice of Proposed Rulemaking*, MM Docket No. 92-964 (Rel. May 17, 2005) ["FCC Second Further Notice"], ¶ 2.

(3) Paper Overview.

This paper will examine various marketplace developments that inform the choice of a horizontal ownership cap. In fact, an abundance of evidence is now available to regulators considering rules to limit horizontal concentration in MVPD markets. These data are not only informative, they must – as noted by the D.C. Circuit – be incorporated into a pro-consumer analysis of such rules.

The analysis begins, in Section II, with a basic overview of the MVPD sector, defining the vertical and horizontal aspects of concern to regulators. Section III then offers a high-level review of basic trends in this sector since 1993, demonstrating how revenues have been shifting towards programming inputs (and away from distributional assets). Section IV conducts a test of the thesis that increased concentration of MSOs in recent years has been accompanied by a shift in bargaining power away from cable program networks in favor of MVPDs. Regression results suggest that increases in MVPD concentration are not correlated with declines (or increases) in license fee revenues earned by cable TV program networks.

Section V reports the results of a financial event study examining share price reactions associated with major mergers in the MVPD sector. Were increased market share of the top MSO to reduce returns to programming, mergers that increase top MSO share would trigger negative abnormal returns in the programming sector, results *not found* in capital markets.

Section VI offers a narrative description of recent developments in new network formation, noting that successful start-ups have come from firms that were not owned by MSOs (such as Fox News), while new networks launched by MSOs have met with failure (CNNfn, CNN/SI). The picture that emerges is that consumers, not MSOs, ultimately select winners and losers. In Section VII, results from the FCC's experiment in MVPD sector bargaining power are discussed. These results suggest that high-quality video programmers *increase profitability* when the largest MVPD provider is permitted to operate at market shares of 44% to 51%. Hence, the Commission's own projections contradict the rationale for the existence of a 30% ownership cap.

Finally, Section VIII describes ongoing trends in convergence. Video market boundaries are blurring, with IP video offering an alternative transmission mechanism for consumer viewing. This trend is both unmistakable and hugely important for evaluating horizontal caps on MVPD suppliers. Just as satellite necessitated a reconfiguration of the rules in 1999, web-distributed IP video is forcing re-appraisal today. Indeed, the basic approach of the FCC in setting the 30% cap – which focused on the ability of a cable TV network programming entrant to gain carriage on MVPD menus – is receding as a methodological option.

II. BASIC STRUCTURE OF MVPD SECTOR

The stated purpose of the horizontal cap rules is to preserve “the flow of video programming from the video programmer to the consumer.”⁹ Understanding the basic structure of the industry, then, is helpful in conceptualizing the issues at hand. This structure shapes the manner in which complementary inputs are combined, and is typically pictured as a vertical chain of production. It is briefly described in this section.

Video programming is produced by firms or individuals, and this forms the most basic level of the production chain. Often, production companies contract with studios to film shows; other times, studios themselves produce video content. With the widespread adoption of broadband access, now connecting over fifty million U.S. households and about 13 million U.S. businesses to the Internet,¹⁰ there has been a dramatic expansion in the universe of producers. Many of these content creators are amateurs, and their output is described as “user generated.” Websites such as YouTube.com and Yahoo! Video are aggregating such content in innovative ways, growing viewership and ad sales.

Programming capable of generating significant revenues, either through license fees or commercial placements, is supplied to end users (viewers) via a number of intermediaries. Producers generally sell distribution rights to traditional media, including theaters, and cable or broadcast television networks (including broadcast syndications, which constitute ad hoc networks), or to so-called New Media, including DVD distributors, podcasts, mobile TV platforms, and an array of websites offering video content. Of course, these avenues to the end user are not mutually exclusive, and content owners often use multiple approaches for a given video program.

Focusing on the video content that flows onto MVPD platforms allows us to isolate the vertical chain of production at this stage. Video content is aggregated by program networks. The leading source (largest owner) of cable TV program content is the broadcast TV industry.

While broadcast television is a substitute for, and competes directly with, cable TV programming, broadcast content is also a complement to MVPD operators’ final product. As such, and due to mandated carriage in some instances,¹¹ the distribution of programming to the homes of retail customers – making video content available to viewers – occurs pursuant to carriage agreements between networks and MVPD operators. This forms the penultimate link in the MVPD production chain, which is completed when a customer then subscribes to, and receives, video programming.

⁹ 47 U.S.C. § 533(f)(2)(A).

¹⁰ Federal Communications Commission, *High-Speed Services for Internet Access: Status as of June 30, 2006* (Rel. Jan. 2007), at Table 1, Table 3; <http://www.fcc.gov/wcb/iatd/comp.html>.

¹¹ 47 C.F.R. Ch. 1 § 76.56 (2004).

This simple view of the MVPD sector can be summarized in vertical layers:

- (1) producers (creating video content)
- (2) program networks (aggregating content)
- (3) multi-channel video distribution (cable, satellite)

The ostensible purpose of the horizontal cap is to protect efficiency in (2) by restraining market power in (3). This analysis will be evaluated, and a more basic issue noted with respect to the structure of the market. The flow of video from producers to household viewers may or may not require cable or broadcast TV networks, and policies designed “to ensure... the flow of video programming from the video programmer to the consumer” must reflect the reality that market structures are subject to dynamic shifts – particularly over the 14 years since the FCC crafted its first horizontal cap rule.

III. TRENDS IN MVPD MARKETS SINCE THE 1992 ACT (& 1993 RULES)

Even ignoring recent trends in New Media, there have been pronounced changes in cable TV markets since the 30% horizontal cap was crafted. The most important can be observed in three broad trends. First, there has been a consolidation of cable TV systems. This involves considerable trading of systems to “cluster” operations of MSOs, and a general overall trend towards larger MSOs. As noted by the FCC and the U.S. Department of Justice Antitrust Division (DOJ), substantial scale efficiencies are available and have been realized.¹²

¹² See, e.g., Federal Communications Commission, *In the Matter of Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming, Sixth Annual Report*, CS Docket No. 99-230 (Rel. Jan. 14, 2000) [“Sixth Video Competition Report”], ¶ 162. Federal Communications Commission, *In the Matter of Applications for Consent to the Assignment and/or Transfer of Control of Licenses from Adelphia Communications Corporation to Time Warner Cable, Inc. and Comcast Corporation, Memorandum Opinion and Order*, MB Docket No. 05-192 (Rel. Jul. 21, 2006), ¶ 271 (“The Commission ... has stated that clustering can provide a means of improving efficiency, reducing costs, and attracting increased advertising”).

TABLE 1. MARKET SHARE OF TOP MSOs, 1983-2006

Year	Top MSO	Top MSO Attributed Market Share	Top MSO Non- Attributed Market Share	Top 4 Market Share
1983	TCI		5.84%	
1984	TCI		6.76%	
1985	TCI		6.63%	
1986	TCI		10.40%	
1987	TCI		12.15%	
1988	TCI		13.15%	
1989	TCI		15.38%	
1990	TCI		15.87%	
1991	TCI	23.65%	16.09%	44.41%
1992	TCI	24.18%	17.73%	46.25%
1993	TCI	23.06%	17.09%	44.79%
1994	TCI	23.16%	17.52%	44.07%
1995	TCI	23.48%	18.25%	49.50%
1996	TCI	24.57%	19.21%	53.87%
1997	TCI	25.52%	19.55%	54.30%
1998	TCI	27.54%	15.53%	54.63%
1999	AT&T	26.14%	14.09%	53.94%
2000	AT&T	28.10%	19.28%	52.70%
2001	AT&T	25.06%	15.80%	51.64%
2002	Comcast	30.86%	24.36%	50.48%
2003	Comcast	29.48%	24.31%	55.98%
2004	Comcast	28.39%	23.29%	57.97%
2005	Comcast	27.62%	22.71%	62.67%
2006	Comcast	27.98%	25.16%	

Notes & Sources:

Top MSO Attributed Market Share calculated as follows:

1991-1997: (Top MSO Attributed Share of Cable Subscribers) * (Total Cable Subscribers / Total MVPD Subscribers). Top MSO Attributed Cable Subscribers are recorded from Federal Communications Commission, *Fourth Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming*, CS Docket No. 97-141 (Rel. Jan. 13, 1998). Total Cable Subscribers and Total MVPD Subscribers from various Video Competition Reports. 1991-1996 are December figures while 1997 is a June figure. 1998 - 2006: (Top MSO Attributed Cable Subscribers / Total MVPD Subscribers). The Top MSO Attributed Cable Subscribers are recorded using various time bases for MSO and Total Market Subscribers. Where multiple dates are available for a given year, the latest available date is used. TCI Ex Parte Letters for the period 8/31/1998 through 11/9/1999 report Market Share in Homes Passed. Attributed subscribers are calculated assuming a ratio of subscribers to homes passed consistent with the ratio reported by AT&T in its Ex Parte Letter, filed Dec. 2, 1999.

Top MSO Non-Attributed Market Share calculated as follows:

1983-1990: (Total Basic Subscribers of Top Cable Operators) / (Total Multichannel Households * 1991 Ratio of MVPD Subscribers to Total Multichannel Households). Total Basic Subscribers of Top Cable Operators from company form 10-Ks and Annual Reports. 1983-1987 Total Multichannel Households from *The Economics of Basic Cable Networks 1993*, Kagan Research, LLC (1993), p. 20. 1988-1991 from *Economics of Basic Cable Networks 2000*, Kagan Research, LLC (1999), p. 40. 1991-2006: (Total Basic Subscribers of Top Cable Operators / MVPD Subscribers). Note that 2006 MVPD Subscribers is estimated based on 2004 to 2005 growth rate. Also note that MVPD subscribers are December figures until 1996 and June figures thereafter.

Top 4 Market Share calculated as follows:

1991-1997 from FCC Video Competition Reports. Since the relevant reports record the concentration rates based on subscribers as opposed to on MVPDs subscribers, the rate is adjusted as follows: (Top 4 MSO concentration rate) * (Total Cable Subscribers / Total MVPD Subscribers); where 2006 subscriber figures are estimated based on the 2004/2005 growth rate. 1998-2005 from FCC Video Competition Reports.

The consolidation trend has resulted in the top share of national (attributed) MVPD subscribers reaching approximately 28% by 2006, rising from about 23% in 1993.¹³ See Table 1. Alternatively, the market share of the top four MVPD operators rose from 44.8% in 1993 to 62.7% in 2005 (2006 FCC data are not yet available).¹⁴ While the 1997-2001 period saw a reduction in the market share accounted for by the top firm partly owing to the rapid growth of satellite TV subscribers, the overall pattern is one of growth in the size of the largest MVPD provider.

Second, cable television subscriber growth has slowed as satellite TV operators – following the national launch of DirecTV in 1994 and Echostar in 1996 – have garnered considerable market share. Total cable TV subscribership, which had grown in each year since at least 1975 through 2001, was slightly lower in 2006 than in 1999.¹⁵ Meanwhile, total MVPD subscribership continued to rise, increasing from 80.8 million in 1999 to 94.2 million as of June 2005.¹⁶

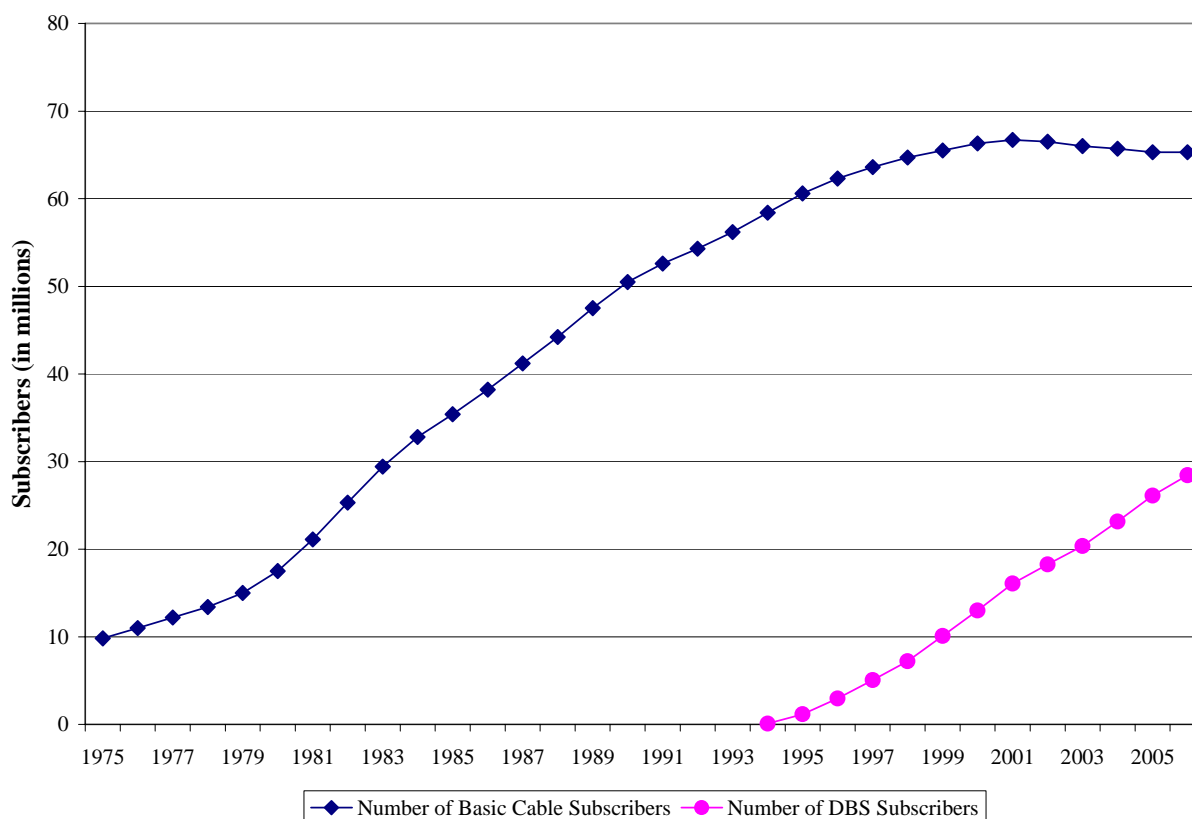
¹³ As discussed above, the percentage of MVPD customers served by one MSO is calculated using an attribution methodology that leads to somewhat different subscriber counts than those typically reported in MSO financial documents. Subscriber numbers reported in MSO financials suggest that the market share of the top MSO (without attributed subscribers) increased from approximately 17% by 1993 to about 25% in 2006. See Table 1.

¹⁴ Table 1.

¹⁵ <http://www.ncta.com/ContentView.aspx?contentId=3577> (visited Mar. 7, 2007).

¹⁶ Federal Communications Commission, Video Competition Reports.

FIG. 1. CABLE AND SATELLITE TV SUBSCRIBERS, 1975-2006



Notes and Sources: Number of basic cable subscribers from <http://www.ncta.com/ContentView.aspx?contentId=3577> (visited Mar. 7, 2007). 1994-2005 number of DBS subscribers from FCC Video Competition Reports. 1995-2005 figures are reported on a Jun. basis, while 1994 figures are on a Dec. basis. Number of 2006 DBS subscribers from 3Q 2006, level reported by Leichtman Research Group, Inc., RESEARCH NOTES, 4Q 2006.

The inter-modal rivalry has resulted in price competition, as various studies have shown.¹⁷ But the more intense margin on which DBS-CATV rivalry has triggered competition is in the quality/quantity realm. From the consumer's perspective, the nominal price of multi-channel video service is, by itself, relatively uninteresting. What counts to the customer is the price paid for a given package. As that suite of services

¹⁷ See, e.g., Austan Goolsbee and Amil Petrin, *The Consumer Gains from Direct Broadcast Satellites and the Competition with Cable Television*, 72(2) *ECONOMETRICA* 351 (Mar. 2004). David Reiffen, Michael R. Ward and John Wiegand, *Duplication of Public Goods: Some Evidence on the Potential Efficiencies from the Proposed Echostar/DirecTV Merger*, University of Texas at Arlington Department of Economics Working Paper, 03-009 (2004); <http://www.uta.edu/faculty/mikeward/dbspaper.pdf>. Note that a Government Accountability Office study which, in 2003, attempted to calibrate the level of Cable-DBS price competition, has been misinterpreted as showing that little or no such rivalry was in evidence. See United States General Accounting Office, *Telecommunications: Issues Related to Competition and Subscriber Rates in the Cable Television Industry*, GAO-04-8 (Oct. 2003), pp. 59-60; and Thomas W. Hazlett, *The Economics of A La Carte: The Economics of All-You-Can-Eat Pricing*, paper submitted to the Federal Communications Commission, *In the Matter of Comment Requested on A La Carte and Themed Tier Programming and Pricing Options for Programming Distribution on Cable Television and Direct Broadcast Satellite Systems*, MB Docket No. 04-207 (submitted Aug. 12, 2004), pp. 42-3.

expands (or contracts), or as the perceived quality of the components of that service rise (or fall), customers find that the quality-adjusted price of video service changes.

Inter-modal competition has prompted cable and satellite operators to provide larger line-ups of increasingly diverse programming. Operators, and the program networks they purchase, have invested increasingly larger sums in the creation of new content for both existing and new channels, as well. DBS operators, on the one hand, launched digital, high-capacity systems in order to pull customers away from cable. Cable TV operators then invested heavily in the 1999-2004 period, sinking over \$75 billion into system upgrades.¹⁸ These capital expenditures created system capacity to increase line-ups to well over a hundred digital video channels. See Table 2.

TABLE 2. AVERAGE CABLE SYSTEM CAPACITY, 1993-2005

Date	Mean No. Basic Analog Channels	Mean No. Digital Channels	Average System Operating Capacity (MHz)
Aug. 1993	38.5	0.0	
Jul. 1994	39.6		
Jan. 1995	40.2		
Jul. 1995	44.0		
Jul. 1996	47.0		
Jul. 1997	49.4		
Jul. 1998	50.1	39.7	
Jul. 1999	51.1		534
Jul. 2000	54.8		623
Jul. 2001	59.4		652
Jul. 2002	62.7		694
Jan. 2003	67.5	136.4	
Jan. 2004	70.3	150.1	734
Jan. 2005	70.5		736

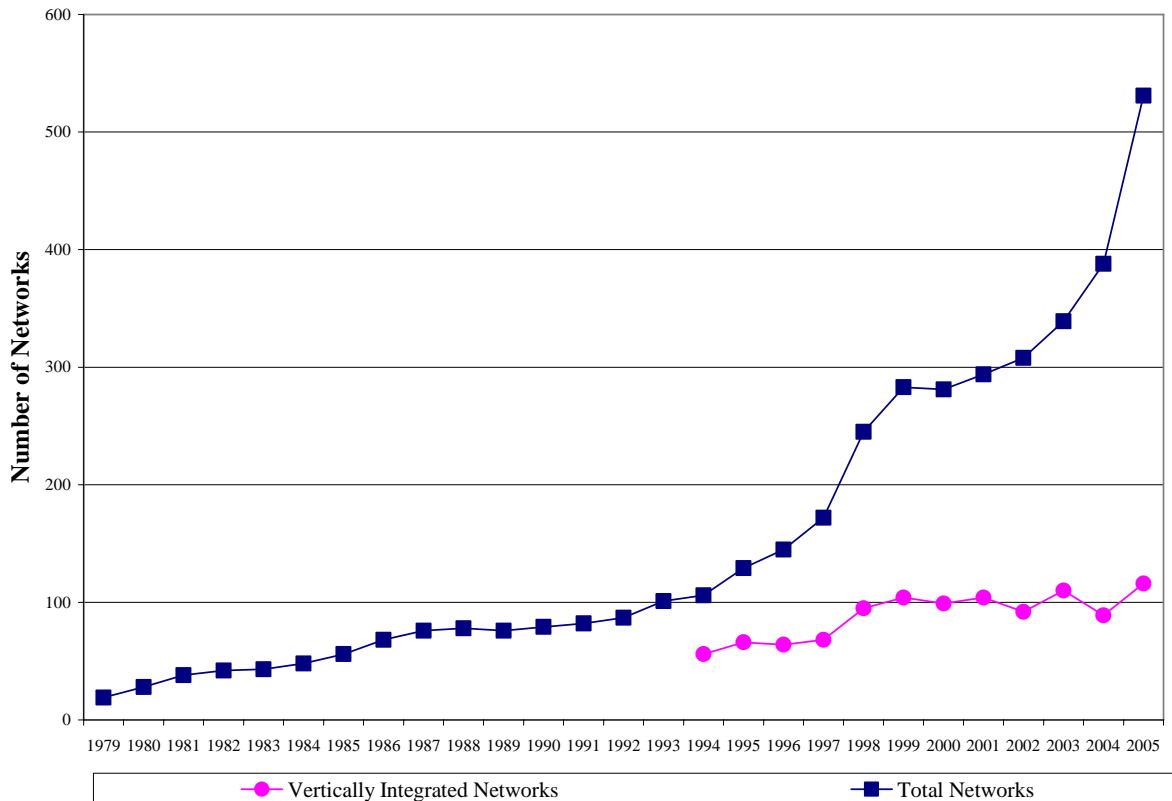
Notes: 1993-2000 data on Analog Channels and 2000-2001 data on Capacity are represented by the average for non-competitive operators as composite figures were not available. All other figures are subscriber-weighted averages. Analog Channels includes only analog channels on the basic and expanded basic tiers.

Sources: Jul. 1995 to Jan. 2005 Analog Channels and Capacity data from Federal Communications Commission, *Report on Cable Industry Prices*, MM Docket No. 92-266 (Rel. Dec. 27, 2006) ["2005 Survey"]. Aug. 1993 to Jan. 1995 Analog Channels from Federal Communications Commission, *Report on Cable Industry Prices*, MM Docket No. 92-266 (Rel. Jan. 2, 1997) ["1995 Survey"]. Jan. 2003 to Jan. 2004 Digital Channels from Federal Communications Commission, *Report on Cable Industry Prices*, MM Docket No. 92-266 (Rel. Feb. 4, 2005). Jul. 1998 Digital Channels from Federal Communications Commission, *Report on Cable Industry Prices*, MM Docket No. 92-266 (Rel. May 7, 1999). Total Digital Channels assumed equal to number of channels on most highly subscribed digital tier because the average number of digital tiers offered = 1. 1993 Digital Channels assumed to be 0. See Brian Riggs, *TV heaven: LSI Logic Corp. and Zenith Electronics Corp. to launch interactive television service*, 21 COMMUNICATIONS INTERNATIONAL 10 (Feb. 1994); Peter Lambert and Leslie Ellis, *1994 Outlook: Fiber Optics Yes, Digital No -- Cable Operators*, MULTICHANNEL NEWS (Nov. 29, 1993); Fred Dawson and Mitch Ratcliffe, *Diverting Cable's Digital Stream?: Technical and Financial Barriers Raise Entry Costs; Logistics, Costs of Set-top Boxes; 1994 Digital World Convention in Los Angeles*, DIGITAL MEDIA (Jul. 12, 1994).

¹⁸ <http://www.ncta.com/ContentView.aspx?contentId=56> (visited Mar. 14, 2007).

One direct consequence of the intense MVPD quality competition is that program network entry is rapidly increasing. In 1998, there were approximately 250 cable TV networks; in 2005, this number had grown to about 530. The increase was virtually entirely due to entry by non-integrated networks – program services not owned by MSOs. See Fig. 2.

FIG. 2. CABLE TV PROGRAM NETWORKS AVAILABLE IN U.S., 1979-2005



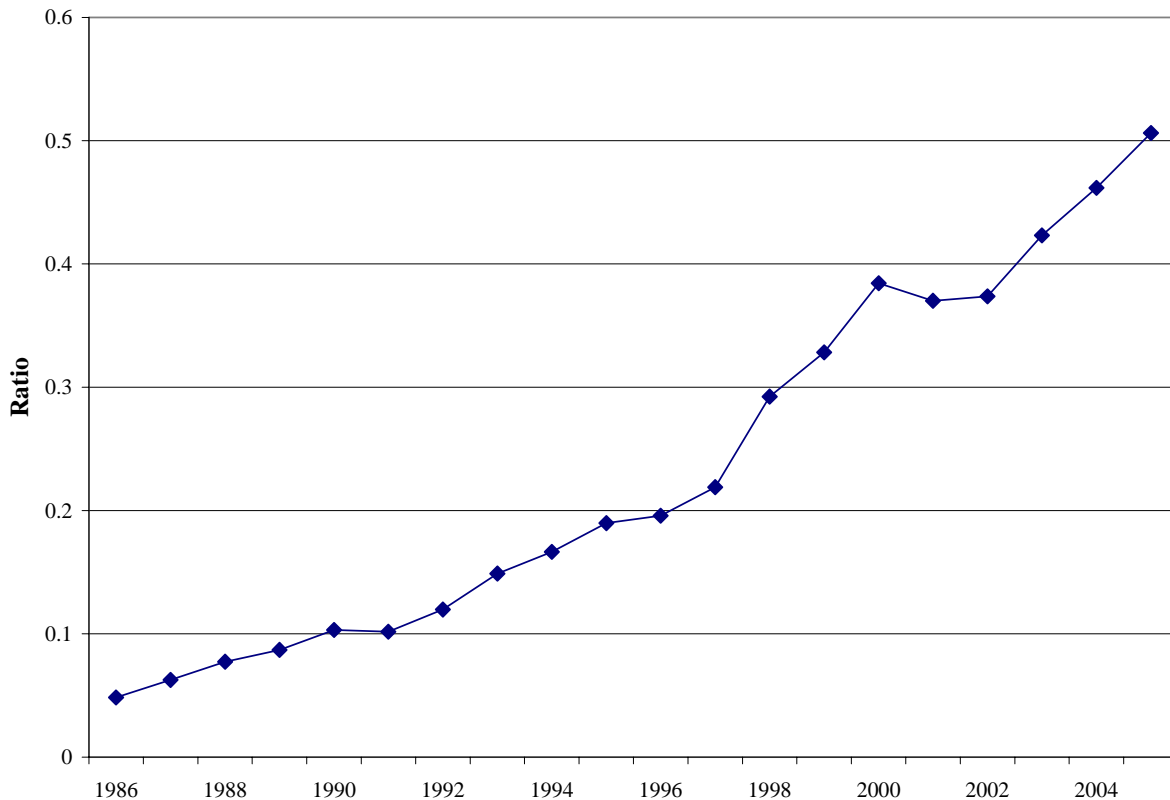
Notes: Total Networks are defined as “satellite-delivered national programming networks.” Vertically-Integrated Networks are owned or partially owned by at least one cable operator.

Sources: Total Networks data for 1979-1993 from *Cable Television Developments*, National Cable Television Association, Research and Policy Analysis Department (May 1990). Data for 1994-2004 from Federal Communications Commission, *In the Matter of Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming, Eleventh Annual Report*, MB Docket No. 04-227 (Rel. Feb. 4, 2005). Data for 2005 from Federal Communications Commission, *In the Matter of Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming, Twelfth Annual Report*, CS Docket No. 05-255 (Rel. Mar. 3, 2006), p. 73.

This leads directly to the third observable trend, the increasing economic importance of cable TV *programming* relative to MVPD *distribution*. Driven by market pressures to improve viewing options, MVPD operators are paying relatively more for programming inputs than they did a decade or two ago – substantially more. As seen in Fig. 3, in fact, the ratio of cable TV program network operating profits (for all networks reported in Kagan’s *Economics of Basic Cable Networks*) to cable operator video-related

operating profits has risen from about *five percent* in 1986 to over *fifty percent* in 2005. The bulk of this shift in industry profit flows has come since 1993, when programming cash flows were only about 15%.

FIG. 3. RATIO OF TOTAL CABLE NETWORK CASH FLOWS TO ESTIMATED CABLE INDUSTRY VIDEO CASH FLOWS, 1986-2005



Sources: 1991-2005 Cable Network Cash Flows from Economics of Basic Cable Networks, 11th Annual Edition, Kagan Research, LLC (2004). 1986-1990 Cable Network Cash Flows from Economics of Basic Cable Networks 2000, Kagan Research, LLC (1999). 1998-2005 Cable Industry Video Revenues from FCC Video Competition Reports. Cash Flows estimated to be equal to 40% of revenues. 1986-1997 Cable Industry Video Revenues from <http://www.ncta.com/ContentView.aspx?ContentId=69> (visited Mar. 13, 2007).

Other financial metrics beyond operating profits (cash flows) tell the same story: cable program networks are gaining higher license fees and realizing a higher proportion of the MVPD “revenue pie.” This trend is impervious to contemporaneous increases in market share by the top cable TV MSO, or to the aggregate market share of the four leading MVPDs.

The pattern can be seen, for instance, in the financial health of the most profitable cable TV channel, ESPN. Owned by a broadcaster (Disney) not affiliated with an MVPD, ESPN negotiates with cable and satellite TV operators to obtain carriage. Increases in the bargaining ability, or monopsony power, of one or more MSOs would presumably lower the payments made by MVPD operators for ESPN’s video programming. Indeed, simply the growth in competing cable TV channels might be

expected to hamper ESPN's revenue gains. Yet, as seen in Table 3, the network has continued to rapidly increase its per-subscriber license fees and its cash flows (revenues minus operating costs), a measure that adjusts for the cost of quality increases (such as the purchase of more popular programming).

TABLE 3. ESPN SALES AND PROFIT DATA, 1984-2005

Year	Year-End Subs. (millions)	Avg. License Fee/Sub/Mo. (\$)	Total Net Revenue (\$ million)	Cash Flow (\$ million)
1984	34.8	0.03	68.0	(17.0)
1985	36.9	0.07	97.2	2.0
1986	40.2	0.10	128.2	13.0
1987	45.2	0.21	216.3	65.0
1988	50.1	0.24	265.0	85.0
1989	54.8	0.39	395.1	105.0
1990	57.3	0.42	520.4	105.0
1991	59.1	0.47	594.1	85.0
1992	61.4	0.56	742.5	188.2
1993	63.1	0.59	833.0	261.0
1994	63.5	0.63	888.0	252.6
1995	68.0	0.67	999.6	298.0
1996	71.1	0.70	1,140.2	334.9
1997	72.7	0.73	1,271.8	381.8
1998	75.7	0.85	1,506.6	426.0
1999	77.1	0.98	1,777.6	526.5
2000	80.5	1.14	2,013.3	584.4
2001	85.9	1.30	2,116.0	599.9
2002	87.0	1.60	2,449.1	585.8
2003	88.4	1.93	2,871.6	663.3
2004	89.1	2.27	3,309.3	770.7
2005	91.2	2.59	3,754.1	858.9

Sources: 1992-2005 from Economics of Basic Cable Networks, 11th Annual Edition, Kagan Research, LLC (2004), p. 201. 1989-1991 from Economics of Basic Cable Networks 2000, Kagan Research, LLC (1999), p. 223. 1984-1988 from The Economics of Basic Cable Networks 1993, Kagan Research, LLC (1993) p. 100. 2004 and 2005 Kagan data are forecast estimates.

A very similar picture emerges when all cable TV networks for which data are available are examined. The metric of average annual program license fees per cable TV subscriber gauges the fortunes of cable TV program networks over time. In 1993, the mean annual per-subscriber program license fee payment for a U.S. cable TV system was

just \$39; by 2005 it had risen to over \$238, a stunning gain (for programmers) of over 500%. See Table 4. Aggregate annual fees paid by cable TV systems (excluding satellite operators) to program networks rose from \$2.19 billion in 1993 to \$15.55 billion in 2005, an *increase of over 600% – 18% annualized for 12 years*. These gains stemmed from both an increase in the number of networks and rising license fees garnered by established networks, as well as the rising number of cable TV households. When increases in DBS systems (which had zero subscribers in 1993) are added in, the gains for program networks are even larger.

TABLE 4. TOTAL PROGRAM LICENSE FEES, U.S. CABLE TV SYSTEMS, 1975-2005

Year	Total License Fees (\$ billion)	Number of Basic Cable Subscribers (millions)	License Fee per Basic Cable Subscriber / year (\$)
1975		9.8	
1976		11.0	
1977		12.2	
1978		13.4	
1979		15.0	
1980		17.5	
1981		21.1	
1982		25.3	
1983	0.06	29.4	2.07
1984	0.11	32.8	3.45
1985	0.17	35.4	4.66
1986	0.26	38.2	6.83
1987	0.42	41.2	10.22
1988	0.55	44.2	12.53
1989	0.99	47.5	20.82
1990	1.35	50.5	26.75
1991	1.62	52.6	30.80
1992	1.90	54.3	34.99
1993	2.19	56.2	38.97
1994	2.47	58.4	42.29
1995	2.94	60.6	48.51
1996	3.52	62.3	56.50
1997	4.43	63.6	69.65
1998	5.28	64.7	81.61
1999	6.18	65.5	94.35
2000	7.42	66.3	111.92
2001	8.83	66.7	132.38
2002	10.47	66.5	157.46
2003	12.10	66.0	183.31
2004	13.76	65.7	209.44
2005	15.55	65.3	238.13

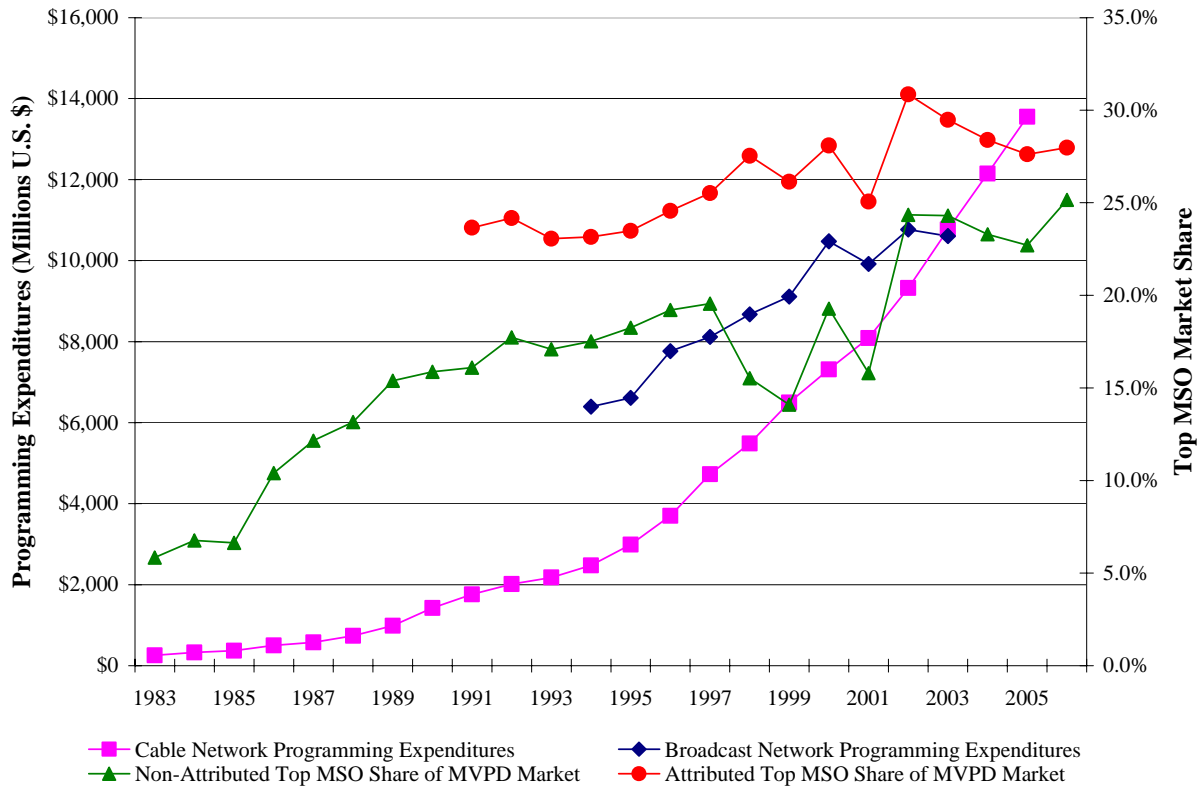
Sources: 1991-2005 Total License Fees from Economics of Basic Cable Networks 11th Annual Edition, Kagan Research, LLC (2004), pp. 4-5. Figures for 2004 and 2005 are forecast estimates. 1983-1990 Total License Fees from Economics of Basic Cable Networks, 2000, Kagan Research, LLC (1999), p. 17. Data does not include superstation license fees, common carrier payments or copyright fees. Number of Basic Cable Subscribers from <http://www.ncta.com/ContentView.aspx?contentId=3577> (visited Mar. 12, 2007).

These exceedingly strong growth trends reflect the underlying economic dynamic that MVPDs are intensely interested in procuring more valuable program inputs, undeterred by increases in industry concentration. Even as the top market share of the leading MSO has grown, program networks have negotiated more generous payments for a rapidly expanding number of video networks. Were increases in horizontal concentration among MVPD platform providers to effectively reduce the bargaining power of programmers, and thereby diminish the flow of video programming to consumers, the financial trends in programming would not likely be so positive.

While market concentration was limited to situations in which the top MSO accounted for less than 30% market share, the evidence is yet valuable in evaluating the FCC's horizontal cap policy choices. That is because, according to the FCC's "open field" analysis used to establish the cap, many programming networks are harmed by bargaining power exercised by MSOs even when the largest operator accounts for market share below thirty percent. Specifically, the Commission notes that some networks may depend on wide national distribution. These networks are particularly vulnerable to MVPD consolidation and, under the FCC's "open field" analysis, would suffer adverse consequences under the concentration increases observed in the marketplace. Yet, these trends in the MVPD market are associated with robust growth in the programming market, an empirical rejection of the FCC's analytical model.

Another way to evaluate the flow of video programming during a period of changing MSO concentration is to examine the trend in programming expenditures by program networks. These sales chart payments to producers and studios from program networks. Importantly, we can track these input payments for both cable and broadcast TV networks (for the period 1994-2003, as per data reported in Kagan). See Fig. 4.

FIG. 4. PROGRAM EXPENDITURES BY CABLE AND BROADCAST TV NETWORKS



Sources: Top MSO Market Share data from Table 1. Broadcast Network Programming Expenditures from *Economics of TV Programming & Syndication, 9th Annual Edition*, Kagan Research, LLC (2005), p. 55. Cable Network Programming Expenditures from *Economics of Basic Cable Networks, 11th Annual Edition*, Kagan Research, LLC (2004), pp. 15-17.

Comparing video program expenditures across these two distinct types of networks – those featuring content initially carried on broadcast TV stations versus those releasing programs on MVPD platforms – is informative. It identifies the relative investment levels by cable TV programmers, networks that must bargain with cable and satellite TV systems for carriage. Broadcast TV network programming, transmitted by local TV stations, is guaranteed carriage via “must carry” rules codified in the 1992 Cable Act. That statute also permitted broadcast stations to negotiate with cable TV systems for retransmission rights, a regime that began in 1993.

The data on program expenditures reveal that, even when broadcasters were endowed with new carriage rights in the post-1992 period, the growth in cable TV program expenses was far steeper. This implies that the boom in video programming sales realized by cable TV networks was associated with program producer revenue increases, and that the sales gains registered by producers were far larger for cable TV programming than for broadcast TV programming. Changing levels of the top MSO market share appear to have no impact on this trend in programming markets.

This examination of industry revenue trends may yet mask marginal changes which do, indeed, suggest that higher concentration levels – in particular, those allowing an MSO to serve more than 30% of MVPD households – are associated with a reduction in program content innovation. In the next two sections, that proposition is tested more directly by looking specifically at how programming market outcomes statistically correlate with increases or decreases in top MSO national market share.

IV. EFFECT OF TOP MSO SHARE ON PROGRAM NETWORK REVENUES

A formal statistical test of the relationship between concentration in the MVPD market and the economic vitality of cable TV program networks yields additional information as to the empirical effect of regulatory ownership caps. If the emergence of a cable company with greater than 30% share of MVPD subscribers reduces the flow of video programming to consumers, this implies a negative relationship between (Top MVPD Market Share) and (License Fees). We test existing market data to see if such a relationship is observed over the MVPD market shares currently permitted.

Model.

In this econometric exercise, I start with the assumption that the revenues generated by licensing fees (paid by the MVPD operator to the cable TV program network, generally on a per-subscriber, per-month basis) are a proxy for the financial well-being of a programmer. As license revenues rise, all else equal, programmers are economically better off, and vice versa. The corollary is that, were market concentration (or other factors) in video distribution markets to reduce the relative bargaining power of cable TV program networks, a reduction in licensing revenues would result. Hence, the estimated equation used to test this proposition predicts programmer licensing revenues with a vector of independent variables.

These independent variables include:

- a) the number of program network subscribers, predicted to be positively correlated with revenues;
- b) the program network's expenditures on programming, predicted (as a proxy for content quality) to be positively correlated with revenues; and
- c) the program network's advertising revenues, predicted to be negatively correlated with license fee revenues when the above size and quality variables are included because at the margin advertising revenues and licensee fees are substitutes to cable program networks;

In addition, two market structure variables are included:

- d) the attributed MVPD market share of the largest MSO (“Top Share”) in the current period, predicted to be negatively correlated with revenues according to the logic of the 30% cap; and
- e) a dummy variable = 1 where the cable program network is owned by one or more MSO, 0 otherwise, predicted to be positive according to the logic of the 30% horizontal ownership cap

Data & Results.

The model was estimated using two data samples. The first was comprised of data on 118 programming networks from 1993 through 2005.¹⁹ The second was comprised of data on the top 30 programming networks as determined by their license fees in 2005. Explanatory variables included subscribers, advertising revenue, programming expenditures, the attributed MVPD market share of the largest MSO and an indicator variable for MSO ownership of the cable programming network. The regression was initially estimated via ordinary least squares. A White test revealed evidence of heteroskedasticity. To correct for this, a fixed-effects regression was employed. A Wooldridge test indicated the presence of autocorrelation in the errors. Seven different corrections for autocorrelation were implemented,²⁰ with consistent results obtained across all specifications. Results of the regression are displayed in Tables 5 and 6.

The econometric results suggest that cable program license fees are highly correlated with subscriber reach of the program network, as well as with program expenditures. These quantity and quality adjustments yield coefficient estimates that are statistically significant across all specifications. Similarly, advertising revenues generated by the cable programmer are negative and statistically significant, as predicted. Once the size and quality of network offerings are adjusted for, increases (decreases) in advertising revenue generated by the program network come at the expense of additional (reduced) license fees.

The coefficient of primary interest is that associated with the MVPD market share of the largest MSO.²¹ There is no evidence that the size of the largest MSO has any systematic effect on cable program network revenues, as the associated estimated coefficient is statistically insignificant.²² Similarly, no correlation (with the endogenous

¹⁹ The number of networks increases during the sample period. 1984-1988 data from Economics of Basic Cable Networks 1993, Kagan Research, LLC (1993). 1989-1991 data from Economics of Basic Cable Networks 2000, Kagan Research, LLC (1999). 1992-2005 data from Economics of Basic Cable Networks, 11th Annual Edition, Kagan Research, LLC (2004).

²⁰ The seven methods for determining the degree of correction for autocorrelation were *t-1* error term regression analysis, Durbin-Watson *d* statistic analysis, *t+1* error term regression analysis, the time-series correlation method, the Theil method, the Nagar method, and the one-step estimator method.

²¹ Similar results were found when the market share of the largest MSO was replaced with the share of the top four MVPD providers or with the MVPD HHI.

²² In the OLS specification, this variable tests significant, but positive. It is insignificant in the corrected regressions.

variable) appears in the data with respect to the MSO dummy.²³ Hence, there is no evidence that ownership by a cable TV operator increases license fees for program networks.

These statistical findings suggest that, for the range of MSO market shares observed in the marketplace since 1993, increased levels of market share of the largest MSO are not associated with diminished revenues for cable TV program networks. This empirically undermines the case for maintaining a 30% cap on ownership.

²³ In the OLS and uncorrected fixed-effects specifications, this variable tests significantly positive over the whole sample. It is, in the uncorrected fixed-effects specification, significantly negative for the top 30 networks. It is statistically insignificant across all the corrected specifications.

**TABLE 5. ECONOMETRIC PREDICTION OF CABLE PROGRAM NETWORK REVENUES:
RESULTS – ALL NETWORKS**

Coefficient	OLS	Fixed Effects	Fixed Effects with Autocorrelation Corrections							
Constant	-3.229** (0.740)	-1.506** (0.159)	-1.614** (0.161)	-1.506** (0.159)	-1.898** (0.172)	-1.968** (0.195)	-1.915** (0.173)	-1.505** (0.159)	-1.913** (0.173)	
Top Share	6.888* (2.702)	-1.997 (1.337)	-1.982 (1.344)	-1.997 (1.337)	-1.926 (1.377)	-1.825 (1.462)	-1.92 (1.382)	-1.998 (1.337)	-1.921 (1.381)	
MSO	1.099** (0.216)	-0.027 (0.277)	-0.025 (0.278)	-0.027 (0.277)	-0.019 (0.285)	-0.026 (0.301)	-0.019 (0.286)	-0.027 (0.277)	-0.019 (0.286)	
Subscribers	0.046** (0.005)	0.081** (0.012)	0.081** (0.011)	0.081** (0.012)	0.082** (0.011)	0.078** (0.009)	0.082** (0.011)	0.081** (0.012)	0.082** (0.011)	
Ad_Revenue	-0.009** (0.001)	-0.015** (0.002)	-0.015** (0.002)	-0.015** (0.002)	-0.014** (0.002)	-0.013** (0.002)	-0.014** (0.002)	-0.015** (0.002)	-0.014** (0.002)	
Progrm_Exp	0.088** (0.001)	0.089** (0.001)	0.090** (0.001)	0.089** (0.001)	0.091** (0.001)	0.093** (0.001)	0.091** (0.001)	0.089** (0.001)	0.091** (0.001)	
Observations	970	850	850	850	850	850	850	850	850	
Number of Channel_ID		118	118	118	118	118	118	118	118	
R-squared	0.97	.	.	.	.	.	.	.	.
r2_b	.	0.967	0.967	0.967	0.967	0.968	0.967	0.967	0.967	
F	5516	958.2	1010	958.2	1258	1792	1288	957.8	1285	
White's general test statistic :	325.1133									
Chi-sq(19) P-value	1.40E-57									
Wooldridge test for autocorrelation in panel data										
H0: no first-order autocorrelation										
F(1, 93) =		9.357								
Prob > F =		0.003								

Notes: Standard errors in parentheses. ** p<0.01, * p<0.05.

**TABLE 6. ECONOMETRIC PREDICTION OF CABLE PROGRAM NETWORK REVENUES:
RESULTS – TOP 30 NETWORKS**

Coefficient	OLS	Fixed Effects	Fixed Effects with Autocorrelation Corrections							
Constant	-8.418** (1.907)	-4.661** (0.549)	-4.851** (0.552)	-4.661** (0.549)	-5.632** (0.572)	-5.339** (0.605)	-5.646** (0.584)	-4.640** (0.548)	-5.659** (0.582)	
Top Share	15.672* (7.323)	-6.33 (3.407)	-6.297 (3.413)	-6.33 (3.407)	-6.149 (3.478)	-6.078 (3.665)	-6.116 (3.542)	-6.333 (3.406)	-6.119 (3.532)	
MSO	2.810** (0.507)	-0.309 (0.539)	-0.313 (0.541)	-0.309 (0.539)	-0.353 (0.556)	-0.452 (0.591)	-0.389 (0.569)	-0.309 (0.539)	-0.384 (0.568)	
Subscribers	0.103** (0.014)	0.157** (0.032)	0.158** (0.032)	0.157** (0.032)	0.162** (0.028)	0.153** (0.023)	0.160** (0.026)	0.157** (0.032)	0.161** (0.026)	
Ad_revenue	-0.012** (0.002)	-0.016** (0.003)	-0.016** (0.003)	-0.016** (0.003)	-0.016** (0.002)	-0.015** (0.002)	-0.015** (0.002)	-0.016** (0.003)	-0.016** (0.002)	
Progrm_Exp	0.087** (0.001)	0.091** (0.002)	0.091** (0.002)	0.091** (0.002)	0.092** (0.002)	0.093** (0.002)	0.093** (0.002)	0.091** (0.002)	0.093** (0.002)	
Observations	343	311	311	311	311	311	311	311	311	
Number of Channel_ID		30	30	30	30	30	30	30	30	
R-squared	0.97	.	.	.	.	.	.	.	.
r2_b	.	0.966	0.966	0.966	0.966	0.965	0.966	0.966	0.966	
F	2099	474	488.6	474	620.9	880.4	723.7	472.5	709.5	
White's general test statistic :	85.23491									
Chi-sq(19) P-value	2.30E-10									
H0: no first-order autocorrelation										
F(1, 23) =		5.726								
Prob > F =		0.0249								

Notes: Standard errors in parentheses. ** p<0.01, * p<0.05.

V. FINANCIAL EVENT STUDY

Stock price movements are useful in discerning how markets are expected to evolve. When new information is learned by traders that affects future opportunities, the direction of stock price movements coincident with the news can reveal investors' expectations about how these events will alter future profit flows. The financial market data tend to be particularly reliable in that forecasts as to how current events will alter future outcomes are generated within a process designed not to influence public policy but to realize returns for investors.

This methodology has been widely used in interpreting the effect of various regulatory events.²⁴ Here it is useful in evaluating changes in market structure that can inform public policies related to the 30% horizontal cable ownership cap. Specifically, capital markets can be observed interpreting the marginal impact of changes in MVPD market concentration on the video programming sector. This occurs when we examine abnormal returns (calculated from share price movements net of overall market returns) for cable TV program networks during "event windows" in which major mergers between MVPD suppliers are announced, moved forward, or set back. If increased MVPD concentration is seen by investors as a threat to the flow of video programming to viewers then positive news for large mergers will be associated with negative returns for programming interests.

Basic Method.

This event study, then, examines stock market data around news generated by the four major concentration-increasing mergers²⁵ in the MVPD market proposed during the past decade. Note that such mergers need not be consummated; since stock prices move on news of anticipated events, it is sufficient that capital markets adjust to changes in probabilities of merger activity. The mergers studied are:

- (1) AT&T/Media One (1999)
- (2) Comcast/AT&T (2001)
- (3) Echostar/DirecTV (2001)
- (4) Adelphia/Comcast-Time Warner (2006)

The key information to be gleaned from these natural experiments is found in the price reactions of firms producing video programming for the cable TV market. Ideally, such firms are publicly listed "pure plays," rather than conglomerates. General Electric, for instance, owns cable program networks (such as CNBC and MSNBC) but is such a large and diversified company that changes in anticipated cable programming profits are

²⁴ See, e.g., George Bittlingmayer and Thomas W. Hazlett, *DOS Kapital: Has Antitrust Action Against Microsoft Created Value in the Computer Industry?* 55 JOURNAL OF FINANCIAL ECONOMICS 329 (Mar. 2000).

²⁵ The point of the exercise is to examine mergers that increase MVPD concentration. The sale of TCI to AT&T in 1998, for example, is not included because AT&T previously held no local cable TV systems. Hence, the acquisition of the firm by AT&T did not increase MVPD market concentration.

not likely to be easily discernible in GE stock price movements around cable TV industry events. While not entirely pure plays in the production of cable program networks, four firms heavily specializing in cable TV programming were selected for observation:²⁶

- (1) Viacom
- (2) ValueVision
- (3) Crown Media
- (4) Liberty Media

In addition to programmer returns, the share price movements of merger target firms during event windows are also examined. This is because the returns to shareholders of targets are known to be substantially positive during takeovers²⁷ and such price changes will flag relevant event windows. If a merger is announced and the target firm's stock rises substantially on the next trading day, this is consistent with the inference that the market is incorporating new information about the merger during this window. When no abnormal target share returns are observed, on the other hand, the possibility looms that the market does not value the "new" information (perhaps because it was previously incorporated into share prices, or because the information is not considered credible, etc.). Hence, event windows are usefully defined not only by the appearance of news reports, but by observation of target firm share price changes in the expected direction (news increasing the likelihood of merger associated with positive target share returns, and vice versa).

Event Windows.

Several relevant dates, when important news stories appearing to release news about the proposed mergers, were identified. The dates for the first three merger events appear in Table 7. Only EchoStar-DirecTV merger events are examined, excluding previous bidding for DirecTV by non-MVPD firms, again reflecting the interest in examining instances in which MVPD concentration increases. The Adelphia take-over is complicated by the fact that Adelphia shares were not publicly listed (due to bankruptcy reorganization) at the time of the merger announcement. It is discussed separately, further below.

²⁶ According to company 10-K filings, over half of Viacom's revenue is generated by advertising and affiliate fees of its Media Networks segment, over three quarters of Crown Media's revenues are generated by advertising and subscriber fees, over two-thirds of ValueVision's revenues are generated by its television home shopping operations, and over 90 percent of Liberty Media's revenues are accounted for by QVC and its Starz Entertainment segments.

²⁷ Acquiring firms' shareholders experience, on average, near-zero abnormal returns. Greg A. Jarrell, *Takeovers and Leveraged Buyouts*, in D. R. Henderson, ed., *THE CONCISE ENCYCLOPEDIA OF ECONOMICS* (2002); <http://www.econlib.org/library/Enc/TakeoversandLeveragedBuyouts.html> (visited Mar. 12, 2007).

TABLE 7. POTENTIAL MERGER EVENTS

Acquiring Firm	Target Firm	Date	Event
AT&T	MediaOne	4/23/1999	AT&T bids for MediaOne.
AT&T	MediaOne	5/26/2000	DOJ approves merger.
AT&T	MediaOne	6/5/2000	FCC approves merger.
Comcast	AT&T	7/9/2001	Comcast bids for AT&T.
Comcast	AT&T	9/17/2002	Deal clears DOJ waiting period. Awaiting FCC approval.
Comcast	AT&T	11/13/2002	FCC approves merger.
Dish Network	DirecTV	5/24/2001	Dish Network prepares bid for DirecTV.
Dish Network	DirecTV	10/29/2001	DirecTV agrees to Dish Network bid.
Dish Network	DirecTV	12/10/2002	Deal abandoned.

Notes & Sources: Dates represent the first trading day following each event (the following trading day when news released after 4pm ET) based on WALL STREET JOURNAL articles (with time of release confirmed, where necessary, by other time-stamped news articles and press releases).

Initially, share returns of merger targets on one-day and three-day windows surrounding reported news events were examined to learn if investors responded to the mergers being proposed. Abnormal returns were discerned by estimating the following regression for each acquisition target:

$$R_j = a + B_1 * M_j + B_2 * DUMMY_j + e_j, \text{ where} \quad (1)$$

R_j = return of stock equity shares during period j

M_j = return of the market index during period j

$DUMMY_j$ = 1 if an event window occurs during period j , 0 otherwise

a, B_1, B_2 = estimated parameters

e_j = error term

Table 8 displays results for six of the regressions that were run using this model, testing 1-day returns (for the day associated with the news announcement) and 3-day returns (from the day before until the close of the day after) for each of the three mergers.²⁸ In just two of the nine potential event windows are target firm returns (net of the market) statistically significant (i.e., different from zero) at the 95% confidence level. These two dates are (1) the announcement of the AT&T bid for MediaOne and (2) the announcement of the Comcast bid for AT&T Broadband. Both event windows are associated with positive abnormal target returns. The announcement of the AT&T bid for

²⁸ The table shows the regression results using the S&P 500 as the market index. Regressions were also run using the NASDAQ index. Results of these NASDAQ regressions were not materially different.

MediaOne was associated with an 11.4 to 16.2 percent abnormal positive return for MediaOne. The announcement of the Comcast bid for AT&T Broadband was associated with approximately a 7.6 to 24.4 percent abnormal positive return for AT&T.

TABLE 8. RESULTS OF TARGET FIRM REGRESSIONS

Coefficient \ Regression	MediaOne		AT&T Corp		DirecTV	
	1-day	3-day	1-day	3-day	1-day	3-day
Constant	0.000 (0.001)	0.001 (0.003)	-0.001 (0.001)	-0.002 (0.002)	0.001 (0.001)	0.002 (0.003)
S&P500	0.663** (0.077)	0.828** (0.125)	1.001** (0.060)	1.066** (0.103)	1.002** (0.066)	1.027** (0.116)
Dummy 04/23/1999	0.114** (0.019)	0.162** (0.031)				
Dummy 05/26/2000	-0.006 (0.019)	0.007 (0.031)				
Dummy 06/05/2000	0.029 (0.019)	0.023 (0.031)				
Dummy 07/09/2001					0.019 (0.029)	0.024 (0.051)
Dummy 09/17/2002					-0.041 (0.029)	-0.068 (0.051)
Dummy 11/13/2002					-0.037 (0.029)	-0.008 (0.050)
Dummy 05/24/2001			0.076** (0.027)	0.244** (0.044)		
Dummy 10/29/2001			0.045 (0.027)	0.020 (0.044)		
Dummy 12/10/2002			-0.027 (0.027)	-0.021 (0.044)		
Observations	371	122	1004	334	1004	334
R-squared	0.23	0.40	0.22	0.28	0.19	0.20
F	27.491	19.282	71.749	32.705	58.647	20.774

Notes: Standard errors in parentheses. ** p<0.01, * p<0.05. Analysis of closing stock price data from 1999-2002.

This procedure yields two merger event windows in which financial markets appear to have materially reacted to merger announcements. Either of these anticipated events would have substantially altered the market share of the largest MSO. Around the time of AT&T bid for MediaOne, the FCC reported that AT&T had the leading market share with 20.5% of MVPD subscribers. MediaOne's market share was 5.8%, making it the fourth largest cable operator at the time.²⁹ Around the time of Comcast's bid for AT&T Broadband in mid-2001, AT&T Broadband had a market-leading 16.4% of MVPD subscribers and Comcast had the number three market share among cable operators, at 9.5%.³⁰ Hence, cable TV programmers equity returns registered during the two identified event windows should reveal information as to how Wall Street investors anticipated higher MSO concentration would impact economic opportunities facing firms supplying content to MVPD operators. According to the theory supporting the 30% horizontal cap, returns for programmers should be negative as concentration increases.

Abnormal Returns for the Programming Sector.

Regressions were then estimated using the Equation (1), with the returns of cable TV program owners (Viacom, ValueVision, Crown Media and Liberty Media) as the endogenous variable in distinct estimations. Each stock was examined over 1-day and 3-day windows, and the coefficient on the dummy (equal to one during the two significant merger episodes) is the predicted value of interest.

Results, displayed in Table 9, indicate that none of the network owners' returns were negative and statistically significant for any of these windows.³¹ The returns of Viacom and Liberty Media were, however, abnormally high during the AT&T/MediaOne event windows (both one- and three-day windows for Viacom, just the one-day window for Liberty), which is *reverse* of the predicted outcome were investors anticipating that MSO consolidation would increase MVPD bargaining power to the detriment of video programmers.

²⁹ Sixth Video Competition Report. These reported market shares may differ from those including top MSO ownership interests in other cable operators (i.e., attribution).

³⁰ Federal Communications Commission, *In the Matter of Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming, Eighth Annual Report*, CS Docket No. 01-129 (Rel. Jan. 14, 2002). Again, these data may not include attributed ownership shares.

³¹ The table shows the regression results using the S&P 500 index as a control variable. Regressions were also run using the NASDAQ index; predictive power tended to be lower, but parameter estimates were consistent.

TABLE 9. RESULTS OF NETWORK FIRMS REGRESSIONS

Coefficient \ Regression	Viacom		Valuevision		Crown Media		Liberty Media	
	1-Day	3-Day	1-Day		1-Day	3-Day	1-Day	3-Day
Constant	0.001 (0.001)	0.003 (0.002)	0.002 (0.001)	0.007 (0.004)	-0.000 (0.002)	0.000 (0.008)	0.001 (0.001)	0.002 (0.002)
S&P500	1.281** (0.054)	1.459** (0.088)	1.363** (0.100)	1.550** (0.170)	1.025** (0.153)	1.108** (0.312)	1.196** (0.068)	1.558** (0.103)
Dummy 04/23/1999	0.075** (0.024)	0.130** (0.038)	0.027 (0.044)	-0.039 (0.074)	0.000 (0.000)	0.000 (0.000)	0.072* (0.030)	0.071 (0.045)
Dummy 07/09/2001	-0.027 (0.024)	-0.008 (0.038)	-0.007 (0.044)	-0.027 (0.074)	-0.012 (0.057)	0.015 (0.112)	-0.017 (0.030)	-0.018 (0.045)
Observations	1004	334	1004	334	667	222	1004	334
R-squared	0.36	0.47	0.16	0.20	0.06	0.05	0.24	0.42
F	187.456	97.713	61.799	27.983	22.538	6.308	104.370	78.465

Notes: Standard errors in parentheses. ** p<0.01, * p<0.05. Analysis of closing stock price data from 1999-2002.

Adelphia-Comcast.

Although Comcast's purchase of Adelphia's cable assets in 2006 was executed without the benefit of visible, publicly traded target share prices, potentially important event dates were identified with respect to Comcast (and Time Warner's) proposed purchase of Adelphia's cable subscribers. These assets were to increase the leading MSO's (Comcast's) subscribership by 1.8 million, leading to a share increase of approximately 1.9 percentage points in the MVPD market.³² These dates, which appear on Table 10, relate to both Adelphia's bankruptcy and the announcement of Comcast and Time Warner's interest in Adelphia's assets.

³²

<http://www.timewarner.com/corp/newsroom/pr/0,20812,1052294,00.html> (visited Mar. 13, 2007).

TABLE 10. POTENTIAL ADELPHIA EVENT WINDOWS

Acquiring Firm	Target Firm	Date	Event
Time Warner & Comcast	Adelphia	3/27/2002	Adelphia announces off balance sheet debts of \$2.3 billion; shares go down by 18%.
Time Warner & Comcast	Adelphia	4/5/2002	Adelphia first mentions it is looking into sales of cable assets.
Time Warner & Comcast	Adelphia	5/9/2002	Adelphia announces that it is soliciting bids for several of its largest cable systems.
Time Warner & Comcast	Adelphia	5/15/2002	Adelphia trading halted and the CEO resigns.
Time Warner & Comcast	Adelphia	6/25/2002	Adelphia files for bankruptcy.
Time Warner & Comcast	Adelphia	4/22/2004	Adelphia board votes to explore sale of assets.
Time Warner & Comcast	Adelphia	2/1/2005	Time Warner & Comcast bid for Adelphia.
Time Warner & Comcast	Adelphia	4/8/2005	Adelphia agrees to Time Warner/Comcast bid.
Time Warner & Comcast	Adelphia	6/27/2006	Judge approves sale of Adelphia assets to Time Warner/Comcast.

Regressions following the form of Equation (1) were run, using dummy variables to denote these nine event dates, to detect abnormally negative returns for cable program network stocks Viacom, ValueVision, Crown Media and Liberty Media. The results (see Table 11) reveal that none of the networks' returns were abnormally low and significant, at the standard 95% confidence level, for any of these nine event windows.³³

³³ The table shows the regression results using the S&P 500 index as a control variable. Regressions were also run using the NASDAQ index. Results of these regressions were not materially different.

TABLE 11. RESULTS OF ADELPHIA NETWORK FIRMS REGRESSIONS

Coefficient \ Regression	Viacom		Valuevision		Crown Media		Liberty Media	
	1-Day	3-Day	1-Day	3-Day	1-Day	3-Day	1-Day	3-Day
Constant	-0.000 (0.000)	-0.000 (0.001)	-0.000 (0.001)	-0.001 (0.002)	0.000 (0.001)	0.001 (0.004)	-0.000 (0.001)	-0.000 (0.001)
S&P500	1.292** (0.039)	1.476** (0.062)	1.329** (0.068)	1.336** (0.112)	1.182** (0.099)	1.271** (0.213)	1.127** (0.048)	1.363** (0.072)
Dummy 03/27/2002	0.016 (0.018)	-0.038 (0.029)	0.003 (0.032)	0.020 (0.053)	-0.014 (0.044)	0.006 (0.094)	-0.018 (0.023)	-0.006 (0.034)
Dummy 04/05/2002	0.026 (0.018)	0.056 (0.029)	-0.010 (0.032)	0.040 (0.053)	0.011 (0.044)	-0.045 (0.094)	0.018 (0.023)	0.021 (0.034)
Dummy 05/09/2002	0.016 (0.018)	0.006 (0.029)	0.023 (0.032)	0.028 (0.053)	-0.016 (0.044)	0.015 (0.094)	0.022 (0.023)	0.033 (0.034)
Dummy 05/15/2002	0.028 (0.018)	0.010 (0.029)	0.077* (0.032)	0.065 (0.053)	0.012 (0.044)	-0.028 (0.095)	0.064** (0.023)	0.042 (0.034)
Dummy 06/25/2002	-0.005 (0.018)	-0.003 (0.029)	0.019 (0.032)	0.008 (0.053)	0.002 (0.044)	-0.038 (0.094)	0.014 (0.023)	-0.066 (0.034)
Dummy 04/22/2004	-0.021 (0.018)	-0.013 (0.029)	-0.016 (0.032)	-0.033 (0.053)	-0.013 (0.044)	0.027 (0.094)	0.003 (0.023)	-0.027 (0.034)
Dummy 02/01/2005	-0.012 (0.018)	-0.021 (0.029)	-0.029 (0.032)	-0.056 (0.053)	-0.027 (0.044)	0.061 (0.094)	-0.015 (0.023)	-0.023 (0.034)
Dummy 04/08/2005	0.004 (0.018)	-0.005 (0.029)	0.003 (0.032)	-0.024 (0.053)	-0.031 (0.044)	-0.034 (0.094)	0.008 (0.023)	0.006 (0.034)
Dummy 06/27/2006	-0.013 (0.018)	-0.014 (0.029)	-0.028 (0.032)	-0.037 (0.053)	0.021 (0.044)	0.036 (0.094)	0.010 (0.023)	0.003 (0.034)
Observations	1758	583	1759	584	1674	555	1758	583
R-squared	0.39	0.50	0.18	0.20	0.08	0.07	0.24	0.39
F	110.845	57.420	38.385	14.724	14.422	3.789	56.602	36.830

Notes: Standard errors in parentheses. ** p<0.01, * p<0.05. Analysis of closing stock price data from 2000-2006.

Summary.

Were substantial increases in the market share of the MVPD market served by the leading MSO to have adverse consequences for the flow of video programming to consumers, investors would surely be aware of this fact. The stock prices of firms producing video program inputs for cable and satellite TV systems would then be adversely affected by the announcement of mergers to create a larger “top MSO,” and would be positively impacted upon news of a merger failure.

Yet, while merger event windows can be identified by financial market reactions raising target share prices, returns to cable TV programmers Viacom, ValueVision, Crown Media, and Liberty Media are unaffected. The evidence from capital markets

suggests that there is no threat to the flow of video programming anticipated by increased concentration of the levels currently observed in the market.

VI. CABLE NETWORK FORMATION

There has been a very large expansion in cable TV program networks during the same period in which top MSO market share has substantially grown. As shown in Fig. 2 in Section III, the aggregate data show that, from 1994 to 2007, the number of cable TV program networks increased from about 100 to more than 500. Moreover, while most networks were at least partly owned by cable TV operators in 1994, only about 20% were vertically integrated with MSOs in 2007.

Of course, this more than 400% expansion in programming networks has been largely driven by increases in the channel capacity of MVPD platforms. Among cable TV systems, basic cable TV packages averaged just 38.5 channels of (analog) video programming in 1993; by 2005, cable systems offered on average well over 200 basic channels of (analog and digital) video programming. See Table 2 in Section III.

The ability of new networks to form and prosper indicates that MSOs are not excluding programming entrants to the detriment of consumers. Rather, operators are rapidly expanding their video menus, purchasing inputs primarily from unaffiliated program networks. Several examples illustrate the general trend.

First, consider the emergence of successful program networks unaffiliated with cable TV operators. A prime example would be Fox News Channel, formed in October 1996. In just over five years, it overtook cable news leader CNN in total day ratings.³⁴ It is now one of the most valuable programming assets in television. In less than one decade, it reached over 89 million U.S. households via cable and satellite, and generated about \$650 million in annual revenues.³⁵ It is currently increasing its monthly license fee from about \$0.25 per subscriber per month to a sum reported to be “around \$0.75.”³⁶ Owned by News Corp., a firm owning no U.S. cable TV operators, it competes directly with Time Warner’s CNN.

Second, consider the exit of prominent MSO-owned networks. CNN Sports Illustrated was a sports news channel owned by Time Warner that launched in December 1996.³⁷ It grew from 10.8 million subscribers in December 1997 to 16.0 million by the

³⁴ Mike Reynolds, *Bottom Line: Fox in Business*, MULTICHANNEL NEWS (Feb. 12, 2007), p. 3.

³⁵ Economics of Basic Cable Networks, 11th Annual Edition, Kagan Research, LLC (2004), pp. 227-28.

³⁶ Mike Reynolds, *Bottom Line: Fox in Business*, MULTICHANNEL NEWS (Feb. 12, 2007), p. 3. Mike Reynolds, *Fox News Triples its Pleasure: CableVision Renewal Pact’s License Fee Tops 75 Cents*, MULTICHANNEL NEWS (Oct. 23, 2006), p. 2.

³⁷ Economics of Basic Cable Networks, 11th Annual Edition, Kagan Research, LLC (2004), p. 32; Federal Communications Commission, *In the Matter of Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming, Fourth Annual Report*, CS Docket No. 97-141 (Rel. Jan. 13, 1998) [“Fourth Video Competition Report”], Table F-1.

end of 2000,³⁸ reaching a maximum of about 20 million viewers before going off the air in May 2002.³⁹ Kagan World Media estimated the network lost about \$76 million over five years, with costs of \$135 million and revenues of \$59 million.⁴⁰

CNN/SI is not just an example of a failed MSO-owned network, but one that competed directly with a non-MSO rival that succeeded. ESPNNews, owned by Disney, launched in November 1996, one month prior to CNN/SI.⁴¹ ESPNNews grew from 8.0 million subscribers in December 1998 (25 months after launch) to 20.0 million by the end of 2000, to 40.0 million by the end of 2003.⁴² It reached an estimated 51.7 million households as of November 2006.⁴³

A similar pattern played out with respect to CNNfn, a financial news channel owned by Time Warner that launched in December 1995.⁴⁴ It reached 7.4 million homes in December 1996, 16.5 million by year-end 2000,⁴⁵ and approximately 30 million households by second-half 2004.⁴⁶ Yet, in October 2004 it was announced that CNNfn would cease operations as of mid-December 2004.⁴⁷

While CNNfn exited, its main competitor, NBC Universal's CNBC, continues to experience market success. Indeed, CNBC is considered an extremely profitable programming network.⁴⁸ During the time CNNfn was offered, CNBC's subscribership increased from 57.0 million to over 86.2 million.⁴⁹ Interestingly, only three years after the failure of CNNfn, Fox is preparing to launch its own business news channel.⁵⁰ Fox Business Channel, again owned by non-MSO NewsCorp, has secured carriage agreements to initially reach 30 million households, "through agreements with such distributors as Comcast, Time Warner Cable, DirecTV and Charter Communications."⁵¹

³⁸ Economics of Basic Cable Networks, 11th Annual Edition, Kagan Research, LLC (2004), p. 32.

³⁹ Rudy Martzke, *CNN/SI Finishes Short but Memorable Run*, USA TODAY (May 15, 2002); Christopher Grimes, *NBA Nets \$4.6bn in Basketball Deal*, FINANCIAL TIMES (Jan. 23, 2002); Matt Kempner, *Timing Flawed on CNN Spinoffs*, ATLANTA JOURNAL-CONSTITUTION (May 26, 2002).

⁴⁰ Staci D. Kramer, *CNN/SI Gets Slam-Dunked*, CABLE WORLD (Jan. 14, 2002).

⁴¹ Fourth Video Competition Report, Table F-2.

⁴² Economics of Basic Cable Networks, 11th Annual Edition, Kagan Research, LLC (2004).

⁴³ Marc Narducci, *Eagles-Jaguars Matchup Pulls in Sizable Numbers*, PHILADELPHIA INQUIRER (Nov. 3, 2006).

⁴⁴ Economics of Basic Cable Networks, 11th Annual Edition, Kagan Research, LLC (2004). Federal Communications Commission, *In the Matter of Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming, Third Annual Report*, CS Docket No. 96-133 (Rel. Jan. 2, 1997), Appendix G, Table 1.

⁴⁵ Economics of Basic Cable Networks, 11th Annual Edition, Kagan Research, LLC (2004), p. 32.

⁴⁶ David Bauder, *CNNfn Financial Network Shutting Down After Nine Years*, ASSOCIATED PRESS STATE & LOCAL WIRE (Oct. 28, 2004).

⁴⁷ *CNN Takes Business News Channel CNNfn Off the Air*, DAILY VARIETY (Oct. 29, 2004).

⁴⁸ Economics of Basic Cable Networks, 11th Annual Edition, Kagan Research, LLC (2004), p. 156. CNBC's net cash flows exceeded \$280 million for each year in the period 2000 to 2003.

⁴⁹ Economics of Basic Cable Networks, 11th Annual Edition, Kagan Research, LLC (2004), p. 30.

⁵⁰ See, e.g., Jon Fine, *Is Fox's Business Channel A Go?* BUSINESS WEEK (Nov. 20, 2006); Joshua Chaffin, *Fox Business Channel Secures New York Entry*, FINANCIAL TIMES (Jan. 3, 2007); Mike Reynolds, *Fox News and Time Warner Do Business; FNC's Renewal Could Empower Financial Net's Launch*, MULTICHANNEL NEWS (Jan. 8, 2007).

⁵¹ Mike Reynolds, *Bottom Line: Fox in Business*, MULTICHANNEL NEWS (Feb. 12, 2007), p. 3.

News Corp's new channel will compete directly not only with CNBC but with Bloomberg Television, an independent cable TV channel that reaches over 38 million U.S. households.⁵²

Third, a variety of independently owned cable networks have entered the market in recent years, including Oxygen Television, American Life TV, The NFL Network and CSTV. These start-ups evidence the belief of their investors that MVPD markets are open to program ideas demanded by consumers, despite increasing levels of operator concentration.

- Oxygen was launched in February 2000⁵³ and is focused on programming aimed at women. It is privately owned by Oxygen Media, founded by Geraldine Laybourne, Oprah Winfrey and the Carsey-Werner-Mandabach Company.⁵⁴ Its subscribership increased from 12.3 million in December 2000 to 50.2 million in December 2003.⁵⁵ According to their website, Oxygen is currently available in over 69 million households.⁵⁶
- AmericanLife TV is a privately owned network that calls itself "your Baby Boomer TV choice."⁵⁷ It airs a combination of original programming and classic television comedies and dramas. In November 2005 it reached 10 million subscribers,⁵⁸ and has since increased its coverage via a carriage agreement with Charter Communications.⁵⁹
- The NFL Network, a venture of the National Football League, launched in November 2003.⁶⁰ It is only the second network in television history to reach 35 million subscribers within two years,⁶¹ and is currently available in over 40 million homes.⁶²
- CSTV Networks, Inc., a cable programming network and digital media company begun in 2002, is the first 24/7 network devoted to college sports.⁶³ In November 2005, CBS Corporation purchased CSTV for \$325

⁵² <http://www.cableguide-digital.com/cable/2006/?pg=22> (visited Feb 21, 2007).

⁵³ *Economics of Basic Cable Networks*, 11th Annual Edition, Kagan Research, LLC (2004), p. 355.

⁵⁴ <http://www.oxygen.com/basics/founders.aspx> (visited Mar. 13, 2007);

<http://www.oxygen.com/basics/about.aspx> (visited Mar. 13, 2007).

⁵⁵ *Economics of Basic Cable Networks*, 11th Annual Edition, Kagan Research, LLC (2004), p. 23.

⁵⁶ <http://www.oxygen.com/basics/about.aspx> (visited Mar. 2, 2007).

⁵⁷ Press Release, AMERICANLIFE TV NETWORKS, *AmericanLife TV Network Adds 700,000 New Subscriber Homes* (Apr. 10, 2006); <http://www.goodtv.com/Assets/Docs/pressreleases/Charter.pdf> (visited Mar. 13, 2007).

⁵⁸ Steve Donohue, *Does Retro TV Compute? Some Have Doubts About Web Appeal Of '70s Stalwarts*, MULTICHANNEL NEWS (Nov. 28, 2005).

⁵⁹ Press Release, AMERICANLIFE TV NETWORKS, op cit. (Apr. 10, 2006).

⁶⁰ <http://www.nfl.com/nflnetwork/faq> (visited Mar. 2, 2007).

⁶¹ <http://www.nfl.com/nflnetwork/timeline> (visited Mar. 2, 2007).

⁶² Tom Steinert-Threlkeld, *NFL Network Ponders Digital Carriage*, MULTICHANNEL NEWS (Jan. 8, 2007).

⁶³ <http://www.cstv.com/online> (visited Mar. 13, 2007).

million.⁶⁴ It currently has 15 million subscribers and is available to 52 million homes.⁶⁵

- BlueHighways, a video-on-demand “channel that celebrates the music and culture of the American heartland--bluegrass and and [sic] gospel, for example, aircraft fairs and rodeos,”⁶⁶ has decided to transform itself into a standard basic cable channel. Owned by the Network Creative Group, BlueHighways has secured its basic cable carriage deals with cable operators Bresnan, Insight, and Charter, as well as distribution agreements with websites Akimbo, Google Video and totalVid.com.⁶⁷

The Sportsman Channel (TSC) has explicitly taken on the presumption that large carriage deals are necessary pre-requisites for economic viability. TSC is an independently owned network that claims to be “the only television channel providing 100 percent hunting and fishing programming, 24 hours a day, seven days a week.”⁶⁸ Founded in April 2003, the network was carried into 11.5 million homes within two years,⁶⁹ and is now seen in over 15 million. Recently, TSC has begun offering video-on-demand content as well.⁷⁰

The Sportsman Channel’s strategy has been to gain carriage incrementally. In an opinion piece in MULTICHANNEL NEWS, President and CEO C. Michael Cooley stated: “We are living proof that channels can survive without Comcast, contrary to the belief of many. TSC has been around for over two years and our channel ... is not just surviving, but flourishing.”⁷¹ Of the top 5 MSOs, Comcast was the last to strike a deal with the Sportsman Channel, yet the channel has continued to grow. According to Cooley, the Sportsman Channel is succeeding due to the quality of its programming and its low subscriber fees, operating under the principle of “[i]f you can prove yourself, they will come.”⁷²

Fourth, the evolution of the MVPD market suggests that vertical integration is becoming less important, overall, in promoting new cable program networks. Not only are cable networks increasingly unaffiliated with cable TV operators (from less than one-half unaffiliated in 1993 to about 80% in 2007), but major program owners such as Viacom do not own MVPD assets. Indeed, Viacom was a major owner of cable TV systems, but sold these assets to TCI in 1995.⁷³ Disney, the owner of ESPN, the most profitable cable TV channel, has never held multi-channel video distribution assets.

⁶⁴ <http://sportsline.com/cbssports/story/9146494> (visited Mar. 14, 2007).

⁶⁵ <http://www.cstv.com/online> (visited Mar. 13, 2007).

⁶⁶ John Eggerton, *BlueHighways Charts New Road as Linear Channel*, BROADCASTING & CABLE (Mar. 6, 2007); <http://www.broadcastingcable.com/article/CA6421890.html> (visited Mar. 12, 2007).

⁶⁷ <http://www.bluehighwaystv.com/ncg/PGAFF.cfm> (visited Mar. 12, 2007).

⁶⁸ <http://www.thesportsmanchannel.com/utility/abouttsc/overview/index.php> (visited Mar. 14, 2007).

⁶⁹ *Sportsman Channel Turns Two*, MULTICHANNEL NEWS (Apr. 5, 2005).

⁷⁰ Press Release, The Sportsman Channel, Inc., *The Sportsman Channel Launches VOD*, (Feb. 14, 2007).

⁷¹ C. Michael Cooley, *How I Started a Network – Without Comcast*, MULTICHANNEL NEWS, (Oct. 3, 2005).

⁷² Ibid.

⁷³ <http://www.cjr.org/tools/owners/viacom-timeline.asp#1990s> (visited Mar. 13, 2007).

Fifth, the growth in DBS allows cable program networks to launch nationwide coverage without dealing with *any* cable TV operators. The scale (in absolute households) constituting a lower bound for financial viability was determined by the FCC in 1999 to equal approximately 15 million subscribers.⁷⁴ With 15.7 million subscribers as of the third quarter of 2006,⁷⁵ DirecTV now exceeds that threshold level. Indeed, the smaller DBS operator, Echostar, will also – at current growth rates – exceed that level in two years, as it served over 13 million households at year-end 2006 and is adding subscribers at the rate of over one million per year.⁷⁶

The options presented by DBS rivals undermine the logic of the FCC’s horizontal cap rules, as illustrated in the recent formation of Current TV, a cable TV network specializing in user-supplied content. Joel Hyatt and former U.S. Vice President Al Gore created INdTV, a company funded by investors unaffiliated with any major media company. In 2004, the firm purchased NewsWorld International, a cable TV channel owned by Vivendi Universal.⁷⁷ The programming format was entirely revamped to feature “viewer created content.” The new program network launched in August 2005, reaching about 19 million households. By early 2007, it was available in approximately 40 million households – most of which received Current TV via DirecTV or EchoStar.⁷⁸ In October 2006, Current TV struck a carriage deal with News Corp. which will expand coverage to 8 million households in the United Kingdom via BSkyB, a satellite TV operator.⁷⁹

In the FCC’s 2005 *Second Further Notice of Proposed Rulemaking*, Comments concerning the threshold level of subscribers (submitted in an a la carte proceeding) were discussed. Among the data introduced there, the following information is noteworthy.

- a. The typical network does not launch until it has commitments from MVPDs of 10 million subscribers within 2 years of launch.⁸⁰
- b. The typical network business plan is for 30 million subscribers within 3 to 5 years.⁸¹

As DBS subscribership approaches 30 million households, these threshold numbers – similar to the FCC’s 1993 determination of minimum efficient scale – fundamentally alter the FCC’s horizontal cap analysis. When a start-up programming network can

⁷⁴ Federal Communications Commission, *In the Matter of Implementation of Section 11(c) of the Cable Television Consumer Protection and Competition Act of 1992, Third Report and Order*, MM Docket No. 92-264 (Rel. Oct. 20, 1999), ¶ 41.

⁷⁵ Leichtman Research Group, Inc., RESEARCH NOTES 4Q 2006, p. 5.

⁷⁶ *EchoStar Reports Fourth Quarter 2006 Financial Results*, BUSINESS WIRE (Mar. 1, 2007).

⁷⁷ Andrew Wallenstein (untitled online article), THE HOLLYWOOD REPORTER (May 6, 2004).

⁷⁸ *Current TV May Expand Global Presence*, UPI (Mar. 14, 2007); Kimberly Nordyke, *EchoStar Has Satellite Link to Current TV*, THE HOLLYWOOD REPORTER (Jan. 31, 2007); Josh Gerstein, *Gore TV Seeks an Audience Via Unusual Fare*, NEW YORK SUN (Feb. 21, 2006).

⁷⁹ *Bskyb Signs On to Current TV*, THE ONLINE REPORTER (Oct. 14, 2006).

⁸⁰ FCC Second Further Notice, ¶ 82.

⁸¹ Ibid.

obtain sufficient initial scale from *either of two* satellite TV operators, the FCC's own test for carriage options avoiding the two largest cable TV MSOs are met without any cap on cable market share. This conclusion extends to the second scale requirement suggested in the FCC Comments, as 30 million subscribers are possible to obtain "within 3 to 5 years" for a start-up obtaining carriage just on DBS systems.⁸²

VII. THE FCC'S 2002 MARKET POWER EXPERIMENT

In 2002, FCC staff undertook an economic experiment in order to see whether bargaining power inefficiently shifted to MVPD providers when the market share of the leading MSO was increased above 30%.⁸³ This was deemed a worthwhile approach, given that the U.S. market has not featured actual market shares this high, perhaps due (since 1993) to the presence of the horizontal ownership cap. The goal, therefore, was to discern in an experimental setting the economic impacts of policies permitting the largest MVPD to serve, for instance, 44% or 51% of U.S. subscribers.

Essentially, the experiment attempted to examine the effect of cable operator size on the performance of the market for program networks. A variety of operator concentration levels were imposed on the experiment's players, who then used a bilateral bargaining mechanism to determine affiliate license fees. The analysis measured the efficiency as calculated by the ratio of the economic surplus generated by the bilateral process against the maximum surplus that could be generated. The results also yielded data on operators' profits and programmers' profits.

The FCC study results with respect to the question of a horizontal ownership cap are clear: "*The average buyer's bargaining power... is not related to the level of horizontal concentration.*"⁸⁴ While the experiment did reveal some inefficiency associated with higher (above 30%) market share for the largest MSO player, this finding does not suggest that increased concentration is the cause. Rather, the tell-tale signs that bargaining power had shifted to MVPD operators and so reduced programmers' financial returns – namely, *inefficiency plus enhanced operators' profits plus reduced programmers' profits* – are not in evidence. Indeed, at the higher levels of cable system ownership by the leading MSO player, namely 44% and 51% of MVPD subscribers, the profits of high-quality network program owners *increase*.

The inefficiency found in the study stems from beneficial transactions not executed, but this outcome was not caused by market power, the regulatory target of the horizontal ownership cap. Instead, the observed inefficiency is presumptively a

⁸² As of third quarter 2006, total DBS subscribership was 28.433 million households, and was increasing by 406,000 households per quarter. See Leichtman Research Group, Inc., RESEARCH NOTES 4Q 2006.

⁸³ Mark M. Bykowsky, Anthony M. Kwasnica, & William W. Sharkey, *Horizontal Concentration in the Cable Television Industry: An Experimental Analysis*, OPP Working Paper No. 35 (revised July 2002).

⁸⁴ Bykowsky et al. (2002), p. 32 (emphasis in original).

byproduct of market design that, given the experiment's other outcomes, has no bearing on likely effects of cable or satellite TV merger activity.

The results of the study are misinterpreted by the FCC in its 2005 Second Further Notice, when it states that

by at least one measure – seller profits and losses – the study found that all except the most profitable networks fared significantly worse in the market dominated by a single 51% buyer than in the market in which the two largest buyers served 44% and 39% of subscribers. The adverse effects on seller profits in these hypothetical markets could induce sellers to either exit the market or lower the quality of their programming...⁸⁵

The above fails to incorporate the fact that the lower profits for sellers *did not come due to higher profits for the buyers*. Moreover, the exit of low quality sellers might then result in further enriching the market opportunity for high-quality programming, which experienced *higher profits* in the 51% “Top MSO market share” market.

All in all, this study demonstrates that concentration does not in and of itself result in any increased bargaining power or loss of efficiency. The losses in the experiments seem to come from the particular bargaining institution used by the experimenters. A reasonable bargaining institution would certainly eliminate any coordination failures found in the experiment and any lost efficiency. These results do not support the view that limiting the size of an operator helps protect the flow of video programming to viewers.

VIII. CONVERGENCE.

The Internet is set to revolutionize television within five years, due to an explosion of online video content and the merging of PCs and TV sets, Microsoft chairman Bill Gates said on Saturday... The rise of high-speed Internet and the popularity of video sites like Google Inc.'s YouTube has already led to a worldwide decline in the number hours spent by young people in front of a TV set. In the years ahead, more and more viewers will hanker after the flexibility offered by online video and abandon conventional broadcast television, with its fixed program slots and advertisements that interrupt shows, Gates said.⁸⁶

A fundamental transformation of U.S. video markets is now underway. While it is now impossible to know if Bill Gates' prediction – that in five years “people will laugh at what we've had”⁸⁷ is overly optimistic or unduly pessimistic – it is clear that markets

⁸⁵ FCC Second Further Notice (2005), ¶ 102.

⁸⁶ Ben Hirschler, *Gates: Internet to Revolutionize TV in 5 Years*, REUTERS (Jan. 28, 2007).

⁸⁷ Ibid.

are changing how video programming is produced, packaged, and transported to end users. Indeed, the term “end users” or “subscribers” is now coming to displace “viewers,” the passive term once applied, without rival, to video content consumers.

The transition under way in the structure of video markets has clear implications for the horizontal cable ownership cap. If the purpose of the rules is to protect the flow of video programming to consumers, then the alternative mechanisms via which end users select and obtain programs must be factored into the analysis. Not only do households have a wider array of options for receiving video content, with more choices unfolding as additional platforms develop, but existing platforms such as cable and satellite TV systems are driven by market incentives to continue to expand their investments in video delivery to remain competitive with evolving media.

In short, to impose a 30% ownership cap within the MVPD market today (whatever its previous merits or shortcomings) fails to incorporate the parallel pathways for video delivery now available. As these non-traditional media become relatively more important over time, which is the standard prediction being made by industry analysts, rules that ignore non-MVPD delivery systems become obsolete – bypassed by market evolution.

The rapid emergence of YouTube demonstrates consumer willingness to view video programming on the web. Since its founding in February 2005, YouTube has become a leader in its field by letting users upload, view, and share video clips. Traffic has exploded, going from less than five million monthly visitors in January 2006 to over 30 million monthly visitors in January 2007.⁸⁸ Nielsen/NetRatings judged YouTube the fastest growing site on the entire Web in the first half of 2006.⁸⁹ According to YouTube, its users watch 100 million videos per day.⁹⁰

While YouTube has garnered considerable interest, many other web sites offer video content. Moreover, the emerging channels for web-distribution are already altering the way video programs are produced, the diversity of sources, and the flow of content to consumers. Opportunities for budding amateur and professional producers are flourishing. A variety of experimental business models are competing to establish themselves in this space. Content creators are actively searching among these developing options. Scott Kirsner, author of The Future of Web Video: New Opportunities for Producers, Entrepreneurs, Media Companies and Advertisers, lists 22 different Internet sites that pay producers to display their video content.⁹¹ See Table 12.

⁸⁸ Kevin J. Delaney and Matthew Karnitschnig, *Reception Problems: TV Industry Clouds Google's Video Vision*, WALL STREET JOURNAL (Feb. 21, 2007).

⁸⁹ Scott Kirsner, *The Future of Web Video: New Opportunities for Producers, Entrepreneurs, Media Companies and Advertisers* (Nov 2006); <http://www.scottkirsner.com/>, p. 79.

⁹⁰ http://www.youtube.com/t/fact_sheet (visited Feb. 12, 2007).

⁹¹ <http://www.scottkirsner.com/webvid/gettingpaid.htm> (visited Mar. 8, 2007). It is noteworthy that this list excludes opportunities for independent distribution or that offered via major media companies.

TABLE 12. VIDEO WEBSITES THAT PAY FOR USER CONTENT

Name	Year Founded
Atom Entertainment	1999
Blip.tv	2005
Break.com	1998
Brightcove	2005
Cruxy	2005
Current.tv	2005
CustomFlix	2002
DivX Stage6	2006
Dovetail.tv	2005
Eefoof	2006
ExpertVillage.com	N/A
EZTakes	2003
Google Video	2005
Grapeflix	2006
GreenCine Video-on-Demand	2002
HungryFlix	2006
Lulu.TV	2006
Metacafe	2003
Panjea	2006
Revver	2005
Si-Mi	2006
TurnHere	2005

Source: <http://www.scottkirsner.com/webvid/gettingpaid.htm> (visited Mar. 8, 2007).

These Internet sites, and other planned services, are differentiated from each other on various dimensions, including:

1. *Streaming or Downloaded Content:* While Internet streaming services such as YouTube have received considerable attention, other sources of internet video programming, such as iTunes offer downloadable content, which may be accessed by or shared among different devices.
2. *Professional or Amateur Producers:* The traditional MVPD delivery model delivers channels featuring professionally-generated content packaged in half-hour or one-hour shows, along with feature films and sporting events. Alternative video distribution platforms provide opportunities for both amateur and professional producers to produce a broader spectrum of video content.
3. *User Control:* Internet-based video sites vary in the degree to which individual users actively select the programming they receive. Some content is offered as an uninterrupted stream of video, while other sites contain short video clips that require the user to actively search for and select desired content. Just as MVPD delivery has increasingly embraced user control (through programmable digital

video recorders and on-demand services), the video delivery model is transitioning from one-way broadcast channels to more customized service.

4. *Revenue Model:* There is high degree of diversity in the business models currently being tested by web-based video distributors, which may rely on flat-rate subscriptions, tiering, pay-per-view, or advertising.

What modes of organization will ultimately prosper is not yet clear. What has already developed, however, are multiple conduits linking video program producers with video program consumers. These emerging distribution platforms include online “networks,” podcasting, video websites, mobile TV and premium movie distribution services.

Online “networks”.

Popular TV shows are now turning to online distribution to enhance distribution of valuable video content.⁹² More dramatically, however, they are creating new platforms for delivering video not carried by broadcast or cable TV networks. The recent partnership between Viacom, a leading cable TV program network owner (with channels such as MTV, Spike TV, BET, Comedy Central and Nickelodeon), and Joost, a website specializing in streaming video content, is emblematic of this trend.⁹³ Indeed, new program networks that exclusively use online distribution of video content are forming, bypassing television program networks (and MVPDs) altogether.

One example is QNN, the Quilter’s News Network, which streams video programming 24 hours a day, 7 days a week at qnntv.com.⁹⁴ According to the website: “One of the unique features of the network is that programming that has never been available, and would never be available via broadcast or even cable because of its lack of general interest, is now available to people who enjoy the craft.”⁹⁵

At least two former cable networks have abandoned the “linear” cable network format to become internet services. Trio, an NBC Universal cable television network launched in September 1994, was transformed into an internet-only service in November

⁹² See, e.g. <http://www.apple.com/itunes/store/tvshows.html> (visited Mar. 8, 2007) (Apple’s iTunes store offers downloads of more than 200 TV shows). See also <http://video.aol.com/video-category/television/67> (visited Mar. 13, 2007).

⁹³ Alex Woodson, *Viacom, Joost Ink Internet TV Pact*, HOLLYWOOD REPORTER (Feb. 21, 2007). (“Joost was founded by Janus Friis and Niklas Zennstrom, who also started Skype Ltd., an Internet telephone company and the Kazaa file sharing network. The company boasts that its technology is ‘piracy-proof’ and guarantees copyright protection for content owners.”)

⁹⁴ QNN’s infrastructure is provided by Atlanta-based Multicast, a leading outsourced provider of Internet broadcast networks. Multicast provides a turnkey, proprietary backend application that allows organizations like QNN to deliver programmed content over the Internet. See <http://www.multicastmedia.com/casestudies/qnn.aspx> (visited Mar. 13, 2007). See also <http://www.qnntv.com/> (visited Mar. 13, 2007).

⁹⁵ <http://www.multicastmedia.com/casestudies/qnn.aspx> (visited Mar. 13, 2007).

2005, approximately one year after losing its DirecTV carriage.⁹⁶ Lime Television, originally a cable television channel owned by Steve Case's Revolution Living, announced in Jan. 2007 that it would drop its cable channel and focus on offering programming through its web site.⁹⁷ At the time of the switch, the cable network was available in seven million homes.⁹⁸

Video program distribution is becoming less and less dependent on traditional television network carriage. After interviewing over 100 web video pioneers, Scott Kirsner concluded that an implication of the "tectonic shift" caused by the broadband economy is that *television channels* are being redefined:

In the Web video era, the concept of collections and queues of content will be more relevant than channels. A channel was a stream of content programmed by someone aiming for the largest audience they could reach. Content collections and queues are organized and programmed for a smaller, more specialized audience – down to an audience of one.⁹⁹

Joshua Goldman, CEO of Akimbo, a video-on-demand system that allows subscribers to download television shows, movies, and other video to a set-top box, goes further:

Linearity is going away as a concept. Channels are going away. I think eventually, we'll say, 'That was silly, how we used to have 500 linear channels.' The world may need 100 or less, and the rest can be video-on-demand collections.¹⁰⁰

Whether such claims come to pass will be seen. But the underlying reality already in evidence is that the video marketplace is changing. Distribution alternatives to MVPDs exist today, prompting reassessment of market structure analyses crafted in a different era.

Podcasting.

Podcasting, which involves distributing a media file over the Internet using syndication feeds, was developed around 2000,¹⁰¹ but didn't become popular until late 2004. From Nov. 2004 to May 2005, the number of podcast feeds available jumped 25-

⁹⁶ Economics of Basic Cable Networks, 11th Annual Edition Kagan Research, LLC (2004), pp. 76-79; *NBC Universal Demotes Trio Channel to Web*, <http://www.msnbc.msn.com/id/10142136/> (visited Feb. 13, 2007). *Lime Sours on Cable, Stays with VOD*, REUTERS (Jan. 29, 2007). See also <http://www.gettrio.com/> (visited Mar. 13, 2007).

⁹⁷ *Revolution Living's Lime Launches Web Channel*, WALL STREET JOURNAL (Jan. 29, 2007). *Lime Sours on Cable, Stays with VOD*, REUTERS (Jan. 29, 2007).

⁹⁸ Ibid.

⁹⁹ Scott Kirsner (Nov. 2006), op cit., p. 12.

¹⁰⁰ Ibid., p. 91.

¹⁰¹ http://en.wikipedia.org/wiki/History_of_podcasting (visited Mar. 13, 2007)

fold, from 212 to 5,302.¹⁰² The popularity of the platform was further facilitated by Apple's incorporation of podcasting in its iTunes software in June 2005.¹⁰³ The iTunes website currently offers "tens of thousands" of audio and video podcasts created both by "big names and independent creators."¹⁰⁴

Podcasts are convenient to access as distribution services like iTunes allow people to subscribe to a podcast and receive new episodes automatically through an RSS feed.¹⁰⁵ Although data on revenues generated by podcasts are scarce, one source estimated 2006 podcasting advertising at \$80 million, and projected that figure to rise to \$300 million by 2010.¹⁰⁶ An April 2005 Forrester Research Report projects strong growth for podcasting, forecasting the application will be used by 12.3 million U.S. households in 2010. Key drivers will be an increase in MP3 device adoption and rising residential broadband penetration.¹⁰⁷

Video Web Sites.

Websites such as YouTube, Joost, Google Video, Akimbo, and Yahoo! Video offer video programming distributed via the Internet. As noted, YouTube quickly became a leader in this field. It was purchased by Google in Oct. 2006 for more than \$1.7 billion.¹⁰⁸ According to Mark May of Needham & Company, YouTube's revenue run rate as of Oct. 2006 was \$50 to \$70 million, and could triple or quadruple those in the next 12 to 18 months.¹⁰⁹ Mary Meeker of Morgan Stanley forecasts that YouTube may eventually generate between \$749 million and \$792 million in annual revenue.¹¹⁰ YouTube's rivals are numerous, and growing quickly. According to Nielsen/Net Ratings data, at least 5 other video websites generated at least 5 million unique visitors as of Aug. 2006. See Fig. 5.

¹⁰² http://www.businessweek.com/technology/tech_stats/podcast050523.htm (visited Mar. 13, 2007).

¹⁰³ <http://www.apple.com/pr/library/2005/jun/28podcast.html> (visited Mar. 13, 2007).

¹⁰⁴ <http://www.apple.com/itunes/store/podcasts.html> (visited Mar. 13, 2007).

¹⁰⁵ <http://www.apple.com/itunes/store/podcastsfaq.html> (visited Mar. 13, 2007).

¹⁰⁶ Anthony Bruno, *Podcasts Coming of Age: New Biz Models, Mobile Platforms Mean Major Opportunities*, BILLBOARD (Apr. 8, 2006).

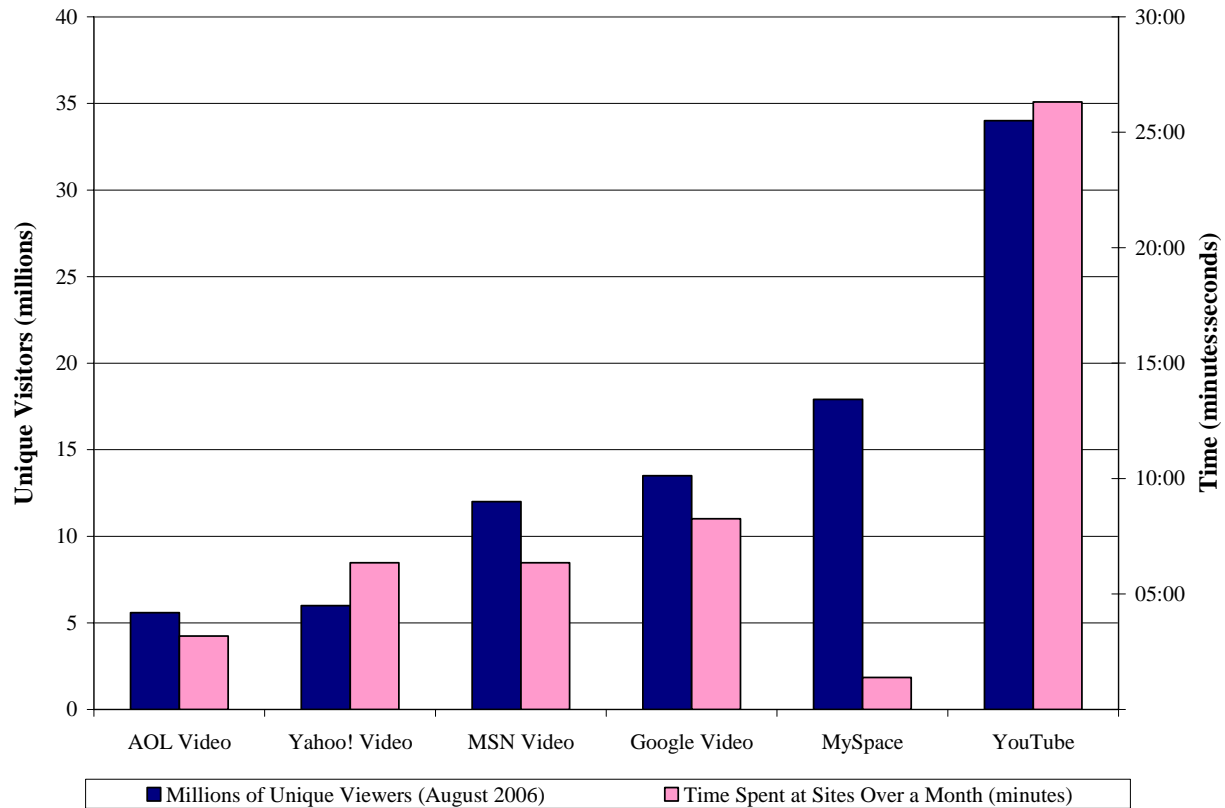
¹⁰⁷ <http://www.forrester.com/ER/Press/Release/0,1769,996,00.html> (visited Mar. 13, 2007).

¹⁰⁸ Kevin J. Delaney and Matthew Karnitschnig, *Reception Problems; TV Industry Clouds Google's Video Vision*, WALL STREET JOURNAL (Feb. 21, 2001).

¹⁰⁹ Ken MacFadyen, *Google's Search for YouTube's Value*, INVESTMENT DEALERS DIGEST (Oct. 16, 2006).

¹¹⁰ Ibid.

FIG. 5. VIEWERSHIP OF MAJOR VIDEO WEBSITES



Source: Scott Kirsner, The Future of Web Video: New Opportunities for Producers, Entrepreneurs, Media Companies and Advertisers (Nov 2006), p. 81. Data originally from Nielsen/NetRatings.

While most popular video websites currently focus on short amateur productions, industry experts believe that the Internet distribution platform being developed will facilitate mass market distribution of all types of programming. Akimbo CEO Joshua Goldman notes:

Connecting a TV to the Internet does two things. It radically expands the type of content that can be viewed on the TV, because it makes it economical to get video onto a TV that wouldn't have been economical before. And second, it makes it possible for big content owners to monetize their programming libraries in new ways...¹¹¹

In my view, niche content and user-generated content doesn't take over the world. It's a massive supplement to the content available today. ... User-generated and niche content will expand the market, but it won't displace the networks or Hollywood.¹¹²

¹¹¹ Scott Kirsner (Nov. 2006), op cit., p. 87.

¹¹² Ibid.

Akimbo currently offers content from more than 100 channels, some of which are staples of cable operators, such as Food Network, CNN and Turner Classic Movies, while others are less widely known, such as SecurityTV, Granada and Oasis TV.¹¹³

CinemaNow is an internet-based digital video distribution company that is concentrating on distributing professional content. The company was founded in 1999 and its library contains more than 4,000 feature-length films, television programs and music concerts from more than 250 licensors including 20th Century Fox, ABC News, Disney, HDNet, Lionsgate, MGM, Miramax, NBC Universal, Paramount Pictures, Sony, Sundance Channel and Warner Bros. Its investors include EchoStar, Microsoft, Lionsgate, Cisco Systems and Blockbuster, among others.¹¹⁴ According to CinemaNow's CEO Curt Marvis:

There is a huge amount of professionally-produced content, and content previously seen through theatrical release or home video, which can't find shelf space in the retail environment, or programming time in the 24/7 TV schedule. The Internet certainly provides an opportunity for that.¹¹⁵

Competition has pushed these websites towards paying "amateur" producers for their content. (See Table 12, listing 22 video web sites that compensate contributors.) While YouTube does not currently pay for content, co-founder Chad Hurley recently indicated that YouTube would soon begin to share advertising revenue with its video contributors.¹¹⁶

Joost, started by the founders of Skype, is another website offering streaming video. It promotes itself as "a platform that will bring you the biggest and best shows from the TV studios, as well as the specialist programs created by professionals and enthusiasts."¹¹⁷ Instead of carrying mostly short video clips uploaded by users, Joost's strategy is to run full episodes with high-quality resolution.¹¹⁸ Also, like traditional television, the service is expected to be financed by advertising that will be shared with video-content owners.¹¹⁹ As noted above, Joost announced a broad distribution deal with Viacom in Feb. 2007.¹²⁰ Its emphasis on professionally produced programming puts it in competition with established MVPD operators even more than alternative online video

¹¹³ http://my.akimbo.com/browse_channel.aspx (visited Feb. 27, 2007).

¹¹⁴ <http://www.cinemanow.com/Aboutus-Background.aspx> (visited Feb. 27, 2007).

¹¹⁵ Scott Kirsner (Nov. 2006), op cit., p. 88.

¹¹⁶ Bob Tedeschi, *New Hot Properties: YouTube Celebrities*, NY TIMES (Feb. 26, 2007).

¹¹⁷ <http://www.joost.com/about.html> (visited Mar. 13, 2007).

¹¹⁸ Matthew Karnitschnig, *Viacom Charts New Course Online*, WALL STREET JOURNAL (Feb. 20, 2007).

¹¹⁹ Kevin J. Delaney, *Duo Envisions Merging Best of TV, Web*, WALL STREET JOURNAL (Jan. 13, 2007).

¹²⁰ Matthew Karnitschnig, *Viacom Charts New Course Online*, WALL STREET JOURNAL (Feb. 20, 2007).

distributors. As noted by a Gartner analyst: Joost “is not a competitor to YouTube in most ways... It’s a competitor to cable television.”¹²¹

IP streaming is also being used as a video distribution platform by content owners who have traditionally used other platforms or business models. ESPN360, for example, augments existing ESPN.com content and delivers it to customers using live webcasts.¹²² Rather than charging consumers directly, however, ESPN charges Internet Service Providers for the right to carry ESPN360. The WALL STREET JOURNAL states: “ESPN’s charge-the-provider model has its roots in the cable-television world, where cable channels charge cable or satellite operators for the right to carry their programming. But it is a revolutionary approach for the Internet, where commercial Web sites are generally available to any consumers – sometimes free, sometimes not – regardless of which Internet service they use.”¹²³ Using this approach, ESPN360 has reached carriage deals with Internet providers such as Verizon and Charter Communications.¹²⁴

Major League Baseball is also migrating video content to the web. Founded in 1999, MLB.tv streams live baseball games to audio/video or audio-only subscribers.¹²⁵ In 2005, the service telecast approximately 2,400 games and earned revenue of \$195 million, including \$68 million in subscriber fees.¹²⁶ This success has led MLB.com to sell its streaming video expertise to other content providers, including CBS, Major League Soccer, Jimmy Buffett and LL CoolJ.¹²⁷

Mobile TV.

Wireless networks are also carrying video content directly to consumers via delivery systems distinct from traditional terrestrial broadcasting or multi-channel video platforms. Mobile TV is distributed via two formats: video streaming or broadcasting. Streaming establishes a dedicated link to the end user. Broadcasting distributes given video content to multiple end users. Juniper Research sees streaming as the more intensively used method today, with video content distributed via 2.5G/3G cellular systems, but forecasts that broadcasting will surpass streaming in mobile TV delivery by 2009. By 2011, it forecasts global revenues of nearly \$16 billion in aggregate, with nearly three-fourths generated via broadcast. See Table 13.

¹²¹ Jeremy W. Peters, *Internet Renegades Go By the Book*, NY TIMES (Mar. 3, 2007).

¹²² <http://broadband.espn.go.com/espn360/> (visited Mar. 15, 2007).

¹²³ Sarah Nassauer, *ESPN Charges Net Providers for Right to Offer Site*, WALL STREET JOURNAL, (Aug. 1, 2006).

¹²⁴ Sarah Nassauer, *ESPN Charges Net Providers for Right to Offer Site*, WALL STREET JOURNAL, (Aug. 1, 2006).

¹²⁵ http://mlb.mlb.com/mlb/subscriptions/compare.jsp?c_id=mlb (visited Mar. 15, 2007).

¹²⁶ Bobby White, *Major League Baseball Steps Out as Coach in the Game of Web Video*, WALL STREET JOURNAL, (Mar. 27, 2006).

¹²⁷ Bobby White, *Major League Baseball Steps Out as Coach in the Game of Web Video*, WALL STREET JOURNAL, (Mar. 27, 2006).

TABLE 13. GLOBAL REVENUES FOR STREAMED AND BROADCAST MOBILE TV SERVICES, 2007-2011

Service Type	2007	2008	2009	2010	2011
Streamed	\$1,211	\$2,094	\$2,957	\$3,622	\$4,220
Broadcast	\$435	\$1,472	\$3,031	\$5,883	\$11,711
Total	\$1,647	\$3,567	\$5,988	\$9,504	\$15,930

Source: Juniper Research, *Mobile TV: The Opportunity for Streamed & Broadcast Services, 2006 to 2011*, Second Edition (July 2006), p. 18. Note: Dollars in millions.

Mobile TV broadcasting networks are already being built in the U.S. One constructed by Qualcomm uses the firm's MediaFLO technology, transmitting video to subscribers using Lower 700 MHz licenses won in a June 2003 FCC auction.¹²⁸ A competitive system is being constructed by Crown Castle, which calls its service Modeo. Market tests are now being conducted in Pittsburgh New York. Video is broadcast using 5 MHz of radio spectrum (1.670 – 1.675 GHz) allocated to FCC licenses won at auction by Crown Castle in 2003.¹²⁹

Premium Movie Distribution Services.

For decades off-line distribution of popular movies through such retail outlets as Blockbuster has offered competition to cable and satellite offerings of premium movie channels and, particularly, video-on-demand services. Recently, firms such as Netflix have tweaked the traditional distribution model to offer home delivery of DVDs, usually by regular mail. This, too, has proven popular. And, in an increasingly broadband-connected world, Netflix is beginning to offer customers the option to use digital downloads to get access to premium movies.¹³⁰

Blockbuster and Netflix face a host of entrants, including Amazon. The latter supplies digital home delivery of video programs via its "Unbox" service. Other new rivals include Vongo, MovieLink, AOL Video, Cinema Now,¹³¹ GreenCine,¹³² and Intelliflix.¹³³

¹²⁸ QUALCOMM and Verizon Wireless Announce Plans for Nationwide Commercial Launch of MediaFLO's Mobile Real-time TV Services; <http://news.vzw.com/news/2005/12/pr2005-12-01.html> (visited Feb. 27, 2007).

¹²⁹ <http://www.modeo.com/company.asp> (visited Mar. 12, 2007).

¹³⁰ <http://www.netflix.com/MediaCenter?id=5384> (visited Mar. 14, 2007).

¹³¹ James Kim, *CNET Editors' Review*, CNET NEWS.COM (Sept. 11, 2006); http://reviews.cnet.com/Amazon/Unbox/Video/Downloads/4505-9239_7-32065040.html (visited Mar. 12, 2007).

¹³² <http://www.greencine.com/central/> (visited Mar. 12, 2007).

¹³³ Marshall Loeb, *Which Online Movie-Rental Service is Right for You?* MARKETWATCH (Mar. 12, 2007); <http://www.marketwatch.com/news/story/picking-right-online-movie-rentalservice/story.aspx?guid=%79FEC93F6%2D16E2%2D470D%2DAACE%2DCD3AA2F952BC%7D> (visited Mar. 13, 2007).

Vongo, for example, is owned by the Starz movie network and launched in 2006. For a \$10 flat monthly fee, subscribers can download hundreds of full-length movies from major studios.¹³⁴ Like other firms delivering online video, it seeks to facilitate the viewing of content on devices other than PCs, including portable media players and televisions.¹³⁵ Microsoft's Xbox 360 video game console is an increasingly popular platform for viewing videos. The NEW YORK TIMES writes, "When it comes to home video, the Xbox 360 has the potential to be a triple threat. Not only does it let users have access to PC-based media files over a home network, but its Xbox Live service, the Internet network that connects Xbox users around the world, can distribute movies and television shows directly to the box."¹³⁶

Summary.

The distribution of video programming is changing in dramatic and fundamental ways. Delivery platforms today are much different than in 1993 when rules were crafted that sought to protect the flow of video programming to consumers by imposing horizontal limits on cable TV operator size. Rules that fail to adjust to changing circumstances become irrelevant or worse, forming barriers to efficient business arrangements.

Even programming that is primarily distributed to consumers via MVPD systems is today made available to viewers over websites such as www.abc.com and <http://www.comedycentral.com>. And, increasingly, web distribution is coming into play as a direct substitute, with new "program networks" choosing to reach consumers via online streaming rather than via MVPD carriage. Certainly, the enthusiasm over user-generated websites such as Google's YouTube speaks to the growth of non-MVPD video platforms. Podcasts, available via iTunes and other websites, help distribute either kind of programming, and themselves offer distribution that substitutes for MVPD delivery. Mobile TV systems, offering both video streaming and video broadcast, are now being created to offer yet another pathway connecting video producers and video consumers. And both offline and online movie rental services bypass cable and satellite distribution platforms for high demand video products. Each of these alternative video delivery paths is growing rapidly.

The essential point is not that cable or satellite TV systems are not primary video distribution platforms. Rather, it is that when analyzing the flow of video programming to viewers, carriage on the leading MVPD supplier must be considered in light of emerging alternatives.

¹³⁴ Wilson Rothman, *A Movie Library in Your Living Room*, NY TIMES (Sept. 27, 2006).

¹³⁵ <http://www.vongo.com/vista/> (visited Mar. 12, 2007); http://starz.mediaroom.com/index.php?s=press_releases&item=644 (visited Mar. 12, 2007).

¹³⁶ Wilson Rothmann, *A Movie Library in Your Living Room*, NY TIMES (Sept. 27, 2006).

IX. SUMMARY

The logic and evidence used to craft the 1993 horizontal cap policy, adjusted in 1999, to permit no cable TV operator to serve more than 30% of MVPD subscribers, has been overturned by federal courts. Regulators must now consider economic theory and market realities to produce a pro-consumer policy regarding horizontal concentration in the MVPD market. As the Commission promulgates new rules with additional analysis, it may avail itself of abundant sources of economic evidence now observed in video distribution markets.

This paper has reviewed much of this evidence. While the MVPD market has become increasingly concentrated since 1993, using the top MSO market share to measure this, the flow of video programming to consumers has not diminished, but flourished. The video content market has never experienced greater profitability, and independent cable TV program networks (unaffiliated with cable MSOs) have never been so numerous nor garnered so large a share of MVPD revenues.

This “golden era” for content has arisen just during the time in which the top MSO market share rose to near the 30% level set as a cap by the FCC in 1993. No anti-consumer harms are evidenced, either in operating markets or in capital markets, from cable ownership growth during this period. This is seen in econometric analysis of license fees, which shows that increases in MVPD concentration are not associated with reduced payments to cable TV program networks, and in financial event studies, which reveal that investors in programmers do not anticipate reduced equity returns when cable TV mergers create substantially higher market share for the leading MSO.

These results are consistent with the FCC’s own experiment, which found that – for hypothetical increases in the leading MSO’s market share above 30% – enhanced operator bargaining power did not lessen economic opportunity for video program producers. The healthy state of video programming should not be a surprise given these results, or other aspects of the FCC’s own analysis. The Commission formulated the horizontal ownership cap by reasoning that new video channels needed at least two (unique) opportunities to sign carriage agreements with MVPDs, excluding carriage on either of the two largest cable TV systems. Today, either of two satellite TV systems has achieved subscriber bases sufficient to launch nationwide cable TV program network start-ups. Hence, the logical conclusion is that the FCC’s criteria are satisfied by the existing MVPD market structure even without a horizontal cable ownership cap.

It should also be noted that, were the FCC’s “open field” analysis to reasonably model market dynamics, important components of video programming would be harmed before any MVPD achieved 30% market share. The Commission notes that, given that some programming networks are characteristically dependent on wide distribution, there is no clear cut-off (at 30% top MSO market share or elsewhere) where MVPD bargaining power begins to turn against video programmers.¹³⁷ Rather, the FCC notes that many

¹³⁷ FCC 2005 SFNPRM, para. 76, 82.

video networks must achieve scale of 40 million to 60 million households to become viable, and are therefore adversely subject to increasing MVPD consolidation (under the FCC's analysis) well before a 30% cap kicks in.¹³⁸ Hence, many important video program outlets should be directly threatened by the concentration increases observed in the market since 1993. Yet, rather than registering financial declines reflecting losses by networks most vulnerable to MVPD market power, the programming network sector is achieving unprecedented financial success, particularly with regard to networks not affiliated with MSOs. Hence, marketplace outcomes are the reverse of what is predicted by the FCC's model.

Beyond the analysis of traditional MVPD platforms, it is evident that the old industry demarcations are being obliterated by disruptive market forces. In an era when video content is naturally migrating to non-MVPD platforms, and when cable TV networks are themselves transitioning to new business models that rely on web distribution and New Media, the basic structural approach used by the FCC in 1993 is being buried by marketplace transformation.

Joshua Goldman, CEO of Akimbo, boldly argues that “[l]inearity is going away as a concept. Channels are going away. I think eventually, we’ll say, ‘That was silly, how we used to have 500 linear channels.’ The world may need 100 or less, and the rest can be video-on-demand collections.”¹³⁹ Whether such claims come to pass remains to be seen. But the underlying reality already in evidence is that the video marketplace is changing dramatically. According to TIME MAGAZINE:

While Joost now offers fewer than 50 channels, it will soon have hundreds, and eventually thousands. To keep things simple, you can stick to a few channels. Or you can open the floodgates. ‘Today TV is 500 channels but we’re not far – maybe three years – from a 5,000-channel world,’ says Hilmi Ozguc, ceo of Maven, which powers Internet TV for media companies like CBS and Univision. ‘And in 10 years, we could easily be at 50,000 channels from all over the world. You’ll have a fly-fishing channel and a channel just for Lost.’¹⁴⁰

As markets are created and destroyed, public policies must adjust. That is the challenge for regulators tasked to devise rules to promote the flow of video programming to U.S. consumers.

¹³⁸ Ibid.

¹³⁹ Scott Kirsner (Nov. 2006), op cit., p. 91.

¹⁴⁰ Jeremy Caplan, *Bringing TV to the Web*, TIME (Mar. 1, 2007); <http://www.time.com/time/business/article/0,8599,1595049,00.html> (visited Mar. 12, 2007).